Industrial Metrology

Probe System Equipment DuraMax®

Original accessories from the technology leader

Industrial Metrology

Imprint
Carl Zeiss 3D Automation GmbH
Carl-Zeiss-Str. 32
73431 Aalen

Telefon: +49 7361 6336 0
Telefax: +49 7361 6336 29

E-mail: orders@3d-net.de
Internet: www.probes.zeiss.com

Note:
Subject to technical modifications and price changes. Our product range is aimed at business customers. All dimensions in mm. Illustrations may vary. You will find our general terms and conditions of sale on the Internet at: www.probes.zeiss.com

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DuraMax® probe accessories from ZEISS

Use tailored and optimized stylus components to obtain the highest performance with your DuraMax® coordinate measuring machine.

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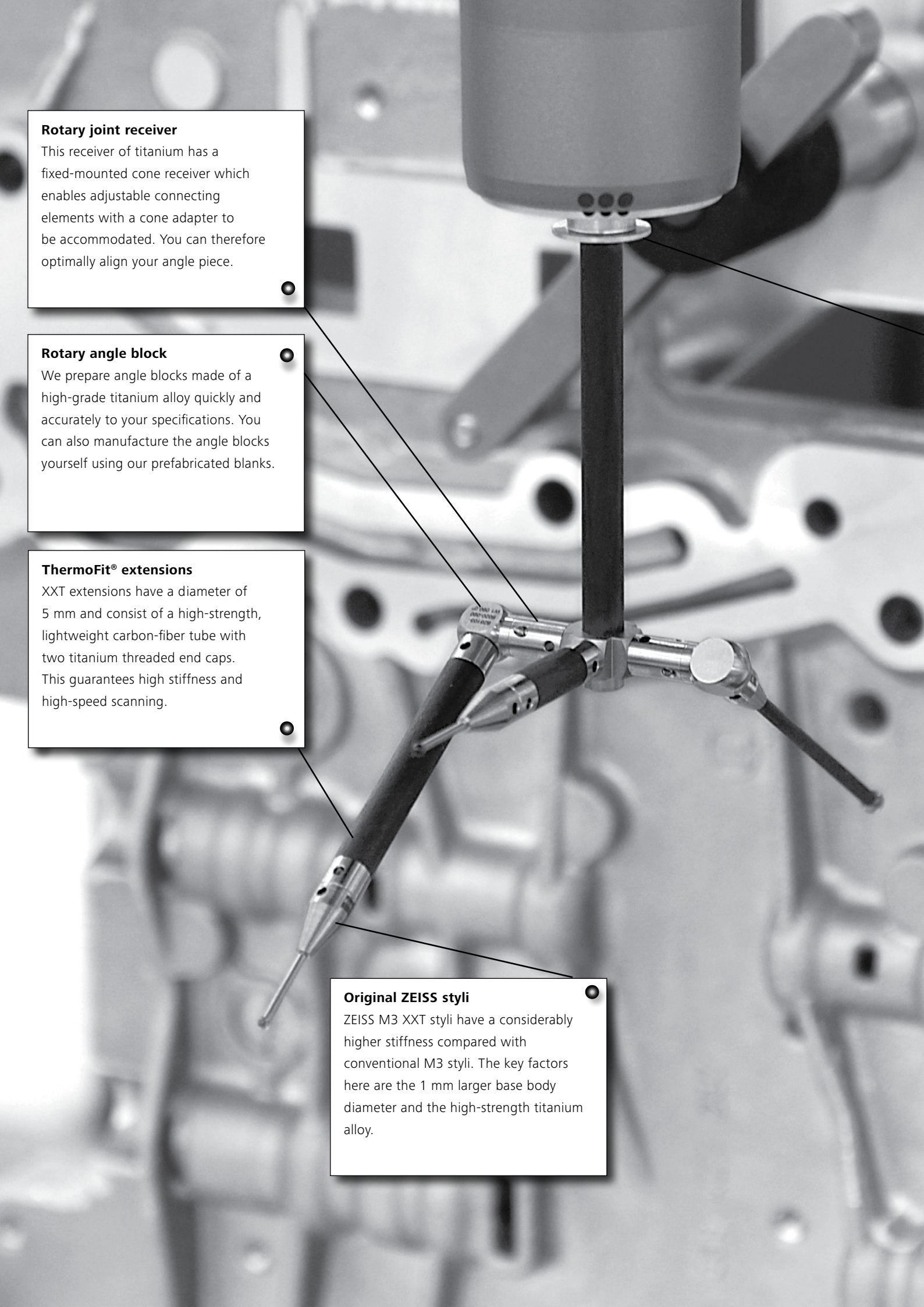


Rotary joint receiver
This receiver of titanium has a fixed-mounted cone receiver which enables adjustable connecting elements with a cone adapter to be accommodated. You can therefore optimally align your angle piece.

Rotary angle block
We prepare angle blocks made of a high-grade titanium alloy quickly and accurately to your specifications. You can also manufacture the angle blocks yourself using our prefabricated blanks.

ThermoFit® extensions
XXT extensions have a diameter of 5 mm and consist of a high-strength, lightweight carbon-fiber tube with two titanium threaded end caps. This guarantees high stiffness and high-speed scanning.

Original ZEISS styli
ZEISS M3 XXT styli have a considerably higher stiffness compared with conventional M3 styli. The key factors here are the 1 mm larger base body diameter and the high-strength titanium alloy.

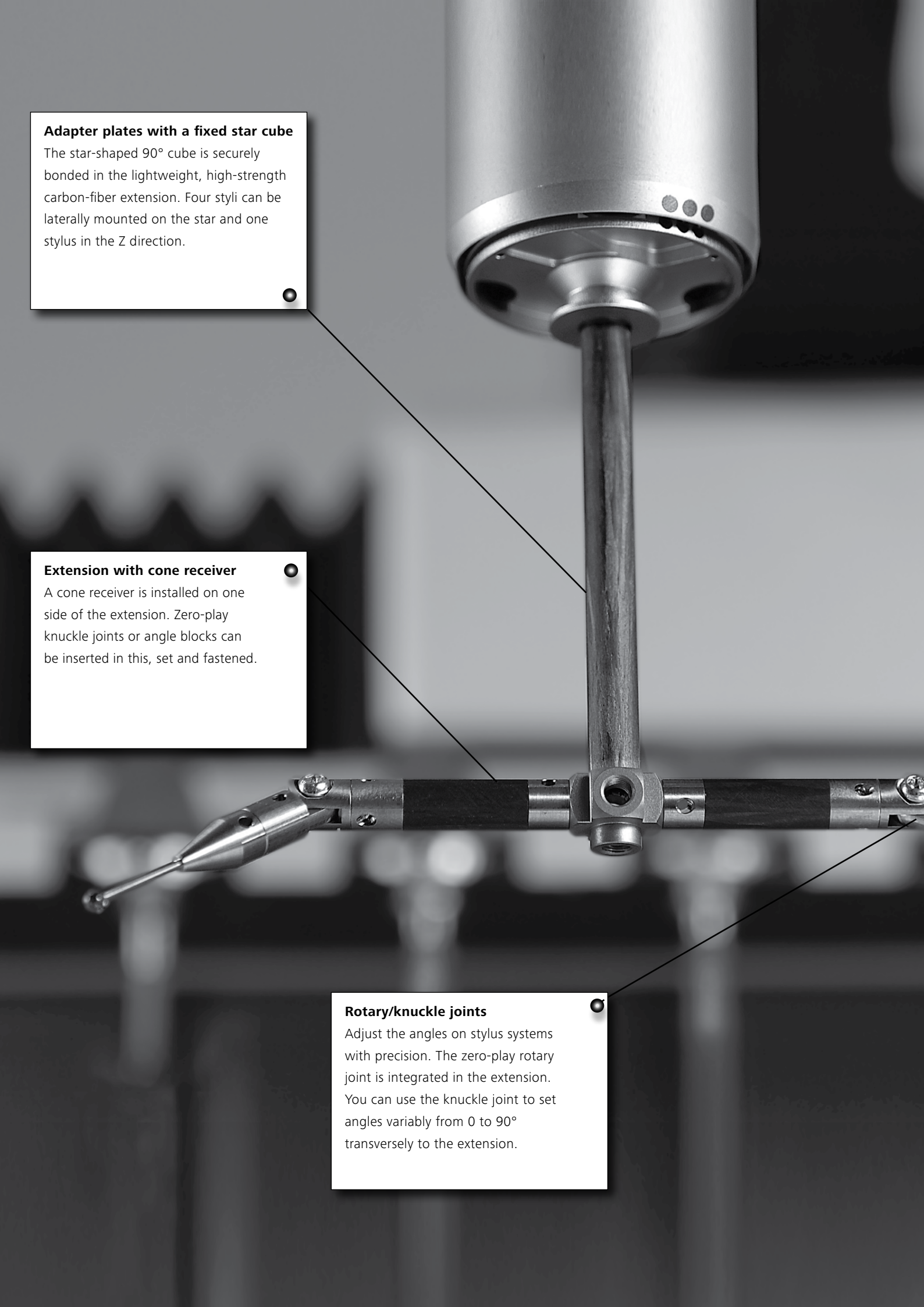
Adapter plates
Original ZEISS adapter plates are also available with a fixed-mounted extension and 4-sided star cube. This saves weight and reduces the number of components which have to be mounted and aligned.

Precision from component to component

A chain is only as strong as its weakest link. This also applies to your stylus system: A single component with too much play or too much weight can have a severe impact on the quality of your measuring results. The measuring uncertainty also increases with each additional component. As with many other things in life, the following maxim also applies here: quality not quantity. Assemble your stylus system from the smallest number of elements possible and place your trust in the precision of each individual component. This is reflected in all of our innovative components – from the ZEISS adapter plates and our rotary joints to the smallest ZEISS stylus.

Put measuring uncertainty in its place! With our M3 rotary joints that have been especially developed for the VAST® XXT probe head. They enable you to create new options for the assembly of your stylus systems because the components have a high stiffness combined with a low-profile construction which makes their measurement points even easier to access. It is very simple to set them to the desired angle with the zero-play conical connection. This enables you to save valuable time. Three sturdy M1.2 threaded pins with Torx interfaces provide high clamping forces and enable secure assembly – and not just once. The rotary joints can be adjusted and still hold their styli securely even after repeated assembly and disassembly of the stylus system.

Do you want to use your stylus system for series measurements in the production environment? No problem. If desired, we fix the alignment of the rotary joints with laser welding. As a result, rotary joints do not unexpectedly detach during operation and the alignment remains stable when styli are changed. And so you have taken another step forward in your quest for precision.



Adapter plates with a fixed star cube
The star-shaped 90° cube is securely bonded in the lightweight, high-strength carbon-fiber extension. Four styli can be laterally mounted on the star and one stylus in the Z direction.

Extension with cone receiver
A cone receiver is installed on one side of the extension. Zero-play knuckle joints or angle blocks can be inserted in this, set and fastened.

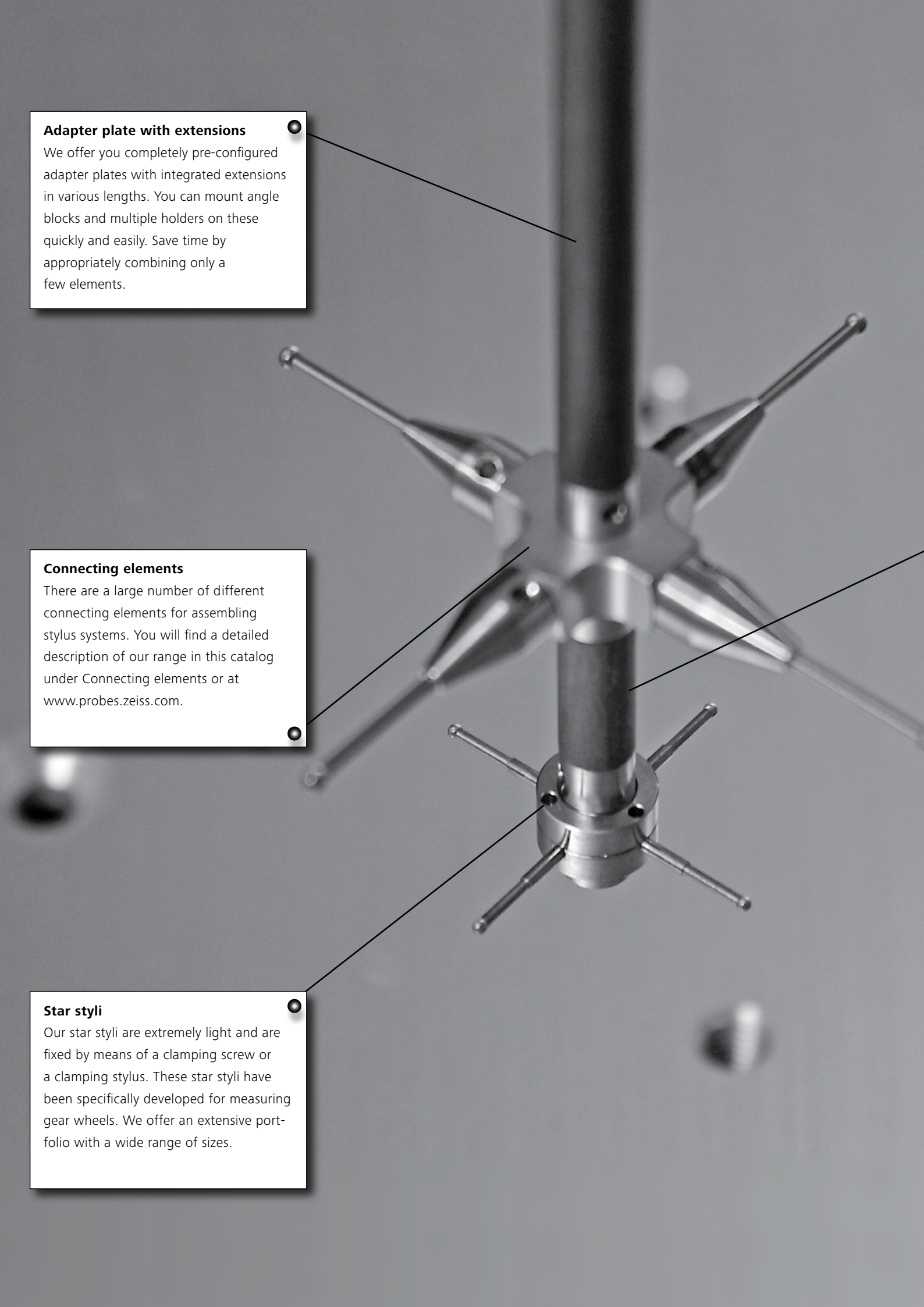
Rotary/knuckle joints
Adjust the angles on stylus systems with precision. The zero-play rotary joint is integrated in the extension. You can use the knuckle joint to set angles variably from 0 to 90° transversely to the extension.

Light weighs heavily

Do you want to get the maximum precision out of your coordinate measuring machine? Then you should take the total weight of your stylus system into account because probe heads are designed for a maximum weight. For example, the ZEISS VAST® XXT probe TL2 and TL3 are designed for 15 g including adapter plate and the VAST® XXT TL1 for 10 g. Our unbeatable light yet high-strength components also enable these limits to easily comply in with in complex stylus systems for maximum accuracy.

Your stylus systems become even lighter thanks to our adapter plate for the VAST® XXT probe. We offer this with securely integrated ThermoFit® extensions and a cube element. However, the adapter plate has not only become lighter through elimination of the detachable connection. You also reduce your measuring uncertainty because you save on a number of individual components. And another advantage is in favor of our adapter plate: Star or T-styli can be assembled very easily as a result of the aligned cube.

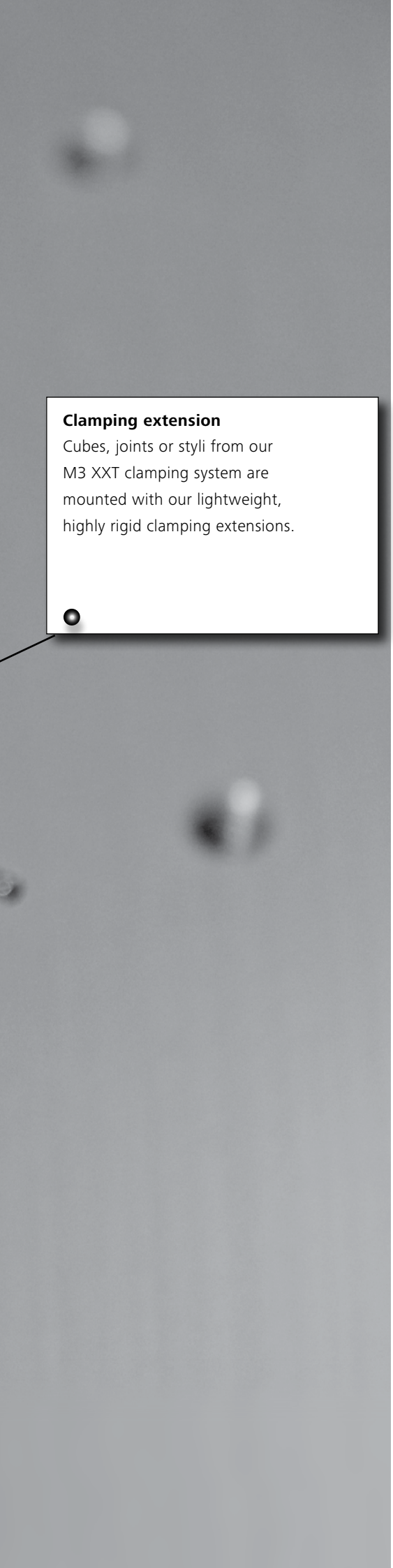
Our rotary/knuckle elements for angled stylus systems provide a solution that enables you to easily reach points on your workpiece which are otherwise difficult to access. You can insert these in extensions with an integrated cone receiver. We also offer these extensions with securely integrated adapter plates in order to cut down on the number of interfaces. We make the measurement of inclined features and the adjustment of stylus systems foolproof.



Adapter plate with extensions
We offer you completely pre-configured adapter plates with integrated extensions in various lengths. You can mount angle blocks and multiple holders on these quickly and easily. Save time by appropriately combining only a few elements.

Connecting elements
There are a large number of different connecting elements for assembling stylus systems. You will find a detailed description of our range in this catalog under Connecting elements or at www.probes.zeiss.com.

Star styli
Our star styli are extremely light and are fixed by means of a clamping screw or a clamping stylus. These star styli have been specifically developed for measuring gear wheels. We offer an extensive portfolio with a wide range of sizes.



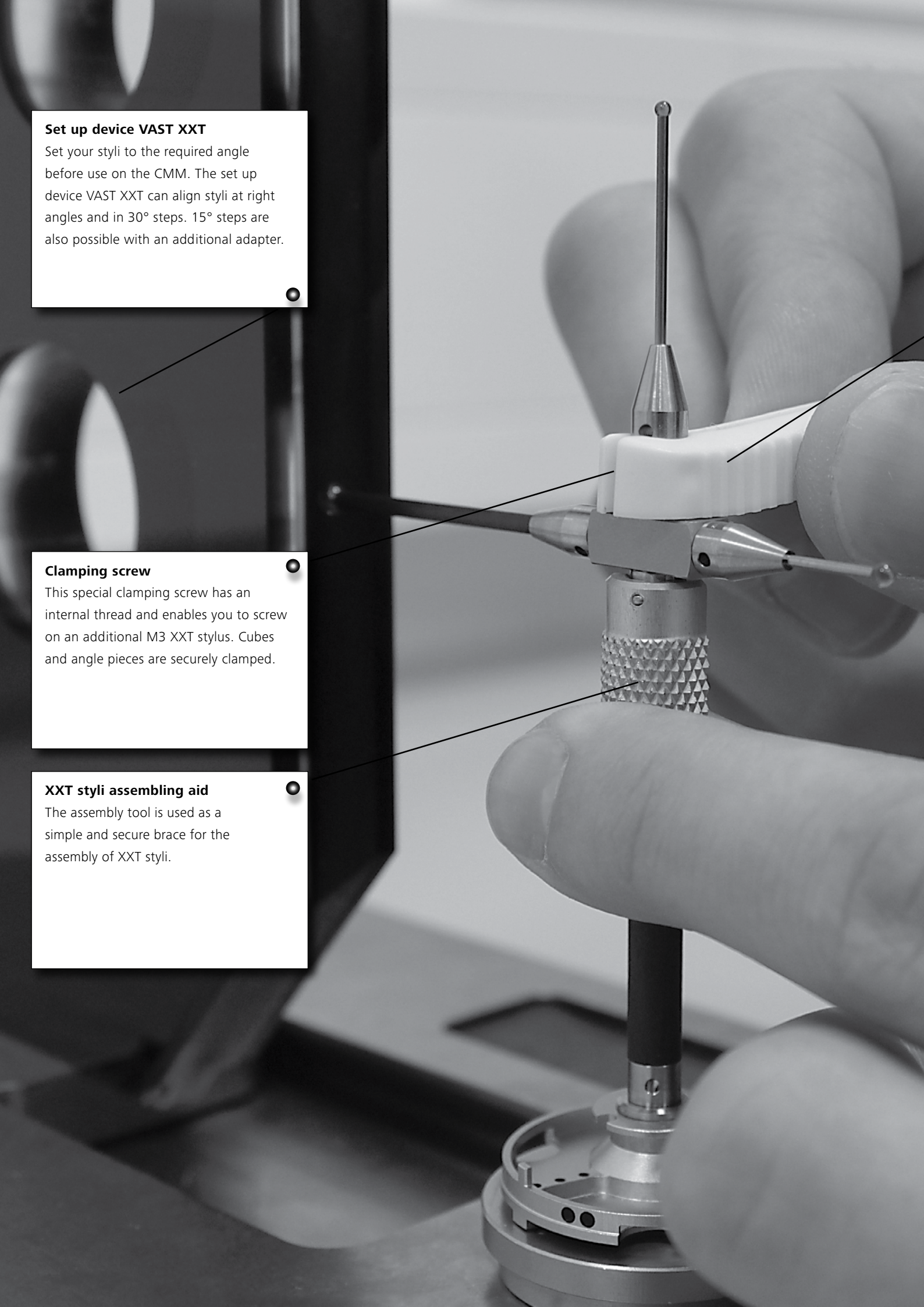
Clamping extension
Cubes, joints or styli from our M3 XXT clamping system are mounted with our lightweight, highly rigid clamping extensions.

Connected without limits

Do you want to measure more quickly? Then save time on changing the stylus! Simply build a suitable stylus system. You now have almost unlimited freedom in your combination options with our connecting elements and clamping pieces which have been especially designed for the VAST® XXT. You can assemble complex yet simple stylus systems without any complications whatsoever and also measure your workpieces at points that are difficult to access without changing the stylus.

Just try it for yourself: Build your optimum stylus system! You can virtually select and test your stylus system with our stylus system kit. The offline software, "Stylus System Creator" (SSC), enables you to construct your stylus system and create the documentation without any problems. Although the SSC software is as flexible as a CAD system, it is much easier to handle, due to its extensive component library. In addition to this, the software is available as a standalone version and is therefore not bound to a CMM computer. And you can immediately check whether your virtually constructed stylus system does what it is supposed to do. For this purpose, you directly transfer the SSC files to the CALYPSO Planner simulation software or to CALIGO. You can also use these to create measuring plans and simulations. You generate your PDF documentation conveniently with a single mouse click. And if everything is correct, you can immediately place an order or request a quotation because you are directly connected to our online store at www.probes.zeiss.com. It couldn't be easier.

Do you have special features to measure that require special connecting pieces or an angle? Then contact us directly. Our experts will happy to help.



Set up device VAST XXT
Set your styli to the required angle before use on the CMM. The set up device VAST XXT can align styli at right angles and in 30° steps. 15° steps are also possible with an additional adapter.

Clamping screw
This special clamping screw has an internal thread and enables you to screw on an additional M3 XXT stylus. Cubes and angle pieces are securely clamped.

XXT styli assembling aid
The assembly tool is used as a simple and secure brace for the assembly of XXT styli.

Assembly pliers
The innovative assembly pliers also hold small styli securely in place. The sophisticated design enables simple handling and defined tightening of ZEISS XXT styli.

Assembling quickly and easily

The assembly of complex stylus systems can quickly turn into a laborious and above all time-consuming task. We have developed various tools especially aimed at metrology so that you can assemble stable and secure stylus systems in no time at all. Our pin and hook wrenches, the XXT stylus assembly pliers and the useful XXT assembly tool not only enable you to assemble complex stylus systems considerably quicker, but you also handle the delicate stylus components with absolute safety, thereby preventing damage to styli and extensions.

The VAST® XXT stylus set-up device demonstrates how simply and safely stylus systems can be assembled and aligned thanks to our tools. Clampable star styli, which were created with our ZEISS VAST® XXT adapter plates, can be effortlessly adjusted by means of this setting aid before being mounted on the measuring machine. In this respect, the stylus is held securely and safely during the whole mounting process. You only need to take three steps to meet your target:

- Simply place the adapter plate with base extension in the fixture provided on the VAST® XXT stylus set-up device. The adapter plate is immediately locked in place by means of a magnet in the holder.
- For alignment, screw the required stylus to the side of a semi-fitted connecting element and move the stylus towards the prism. The angle can be set in 30 degree steps, or in 15 degree steps with an intermediate adapter.
- Next, center the stylus by carefully sliding the prism forward in its guide until it rests against the stylus. Then tighten the connecting element on the base extension with the respective clamping component. The stylus has now been adjusted and the prism can be retracted. The adapter plate is immediately available for use together with the stylus.

Incidentally, our innovative knurl styli, which have a non-slip plastic-coated thread adapter made of titanium, can be completely assembled without tools.

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DuraMax® Product Catalog

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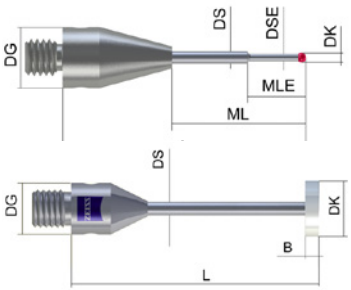
ZEISS stylus

Knowledge base

A stylus normally consists of three parts.
Adapter, shaft and a stylus tip.

The fact applies to all styli, that they should be as bend-resistant as possible to be able to take up the measuring force as far as possible without deformation, the so-called stylus deflection. The shaft structure and the transition to the adapter into which the shaft is fixed is decisive in this matter.

Adapter **Shaft** **Stylus tip**



Legend

DK	ball diameter in mm
L	length range in mm
ML	measuring length in mm
DS	shaft diameter in mm
DG	diameter of base element in mm
MLE	stepped measuring length in mm
DSE	stepped shaft diameter in mm
B	gauge / length of measuring cylinder, mm

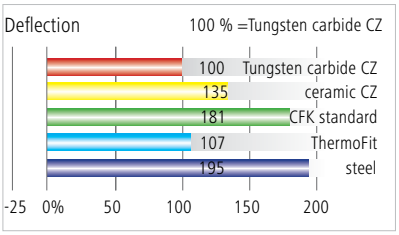
The adapter

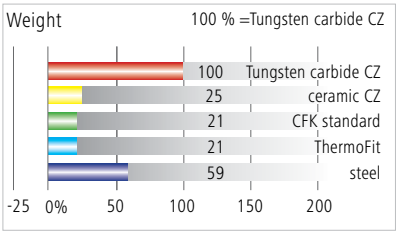
The adapter is the connection between the connection thread and the shaft. It is important that the adapter is designed in such a way that it can withstand the measuring force that is introduced via the shaft in an optimum manner. Otherwise there will be an increased scatter of the probe determinations. In addition, the connection point to the extensions is always undercut to ensure optimum force fit. Depending on the measuring system being used, ZEISS uses M2, M3 and M5 connection threads.

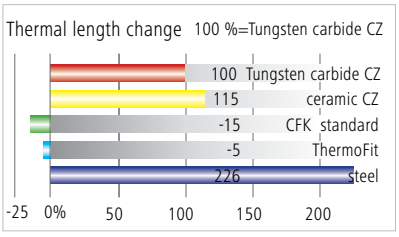
Important!
On XXT stylus systems you must not use normal M3 styli, but rather the optimized M3 XXT styli for passive scanning. As a result of the 1 mm larger diameter of the XXT adapter body and the high-strength titanium alloy used, significantly higher stiffness is ensured when compared to conventional M3 styli.

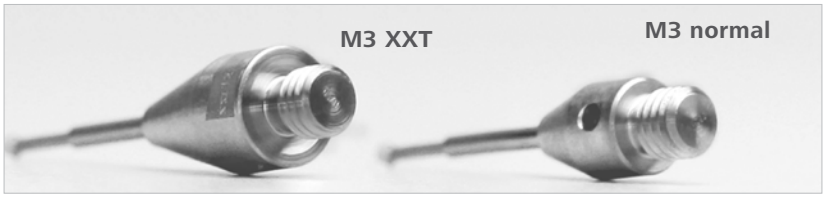
The shaft

We differentiate between a full-length shaft and an offset shaft. The offset shaft has the advantage of a slightly greater shaft thickness DS, that reduces towards the stylus tip. A disadvantage is the reduced available measuring range MLE with the shaft thickness DSE (As compared with DS and ML on a non stepped shaft stylus). The shaft material used for the shaft and the cross-section (solid material is stiffer than tubes) has a great influence on the stiffness of the stylus. The diagram provides an overview of the different material properties of styli. As you can see, ZEISS ThermoFit® styli represent an optimum of the three significant properties: stiffness, weight, thermal expansion in length.









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The stylus tip

The stylus tip can be a sphere, disc, cylinder or a derivation thereof such as a hemisphere or cylinder with a spherical end, etc.

The most often used stylus tip is the stylus sphere. The shape accuracy of the stylus sphere is the deviation from the ideal spherical shape and is generally quoted as the Grade. ZEISS uses Grade 5 styli as standard and for special requirements, such as with extremely accurate roundness tests, Grade 3 spheres are used.

The most common ball materials are shown below, together with their main application areas and limitations.

Material	Application	DK in mm
Ruby	Standard for virtually all applications. Inadequacies with certain materials in combination with continuous scanning (wear or material build-up possible).	0,12 - 12
Silicon nitride	Use in the same way as ruby, but possibly less material build-up when scanning aluminum.	1 - 12
Ceramic (aluminum oxide)	Is used with large ball diameters and disc styli and for scanning rough surfaces, e.g. castings. Weight-optimized hemispheres are possible.	8 - 45
Tungsten carbide	Makes special sizes of ball diameters possible, e.g. when measuring gear teeth. Can be made-to-measure. Very high weight.	2 - 30
Steel	Used mainly for disc styli. Is considerably softer than tungsten carbide but is available in larger diameters.	30 – 100
Diamond	Hardest material in the world, virtually no wear and no material build-up when scanning.	1 / 2 / 3
Diamond-coated	Hardest material in the world as a diamond coating coated, virtually no wear and no material build-up when scanning.	2,1 / 5

Customized styli

We manufacture your stylus on request

You will find prepared forms in our webshop at www.probes.zeiss.com.
You can also send us a fax on +49 7361 6336 29 or an email to orders@3d-net.de.
Please indicate the following in your inquiry:

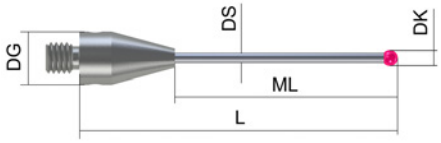
Adapter:
M2 / M3 / M3 XXT / M5

Stylus tip:
sphere / disc / cylinder
DK / B

Stylus material:
ruby / Silicon nitride / diamond / tungsten carbide / ceramic / steel

Shaft:
straight / stepped
DS / DSE / L / ML / MLE

Shaft material:
tungsten carbide / ThermoFit® / ceramic



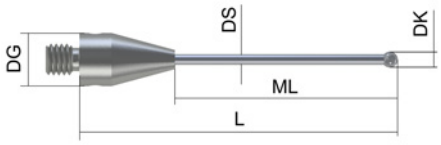
Styli with thread

Adapter: M3 XXT titanium
Shaft: tungsten carbide straight
Stylus tip: ruby sphere

For standard applications, with high stiffness and low weight.

Item no.	DK	L	ML	DS	DG	Weight (g)
626113-0080-014	0.80	14.00	5.00	0.60	5.00	0.6
626113-0100-014	1.00	14.00	5.00	0.80	5.00	0.6
626113-0100-017	1.00	17.00	8.00	0.80	5.00	0.7
626113-0103-020	1.00	20.00	11.00	0.80	5.00	0.7
626113-0141-024	1.35	24.00	15.00	1.00	5.00	0.8
626113-0150-014	1.50	14.00	5.00	1.00	5.00	0.7
626113-0150-017	1.50	17.00	8.00	1.00	5.00	0.7
626113-0150-020	1.50	20.00	11.00	1.00	5.00	0.7
626113-0150-030	1.50	30.00	22.50	1.00	4.00	0.9
626113-0150-035	1.50	35.00	26.00	1.00	5.00	0.9
626113-0151-040	1.50	40.00	31.00	1.00	5.00	1.0
626113-0151-025	1.50	25.00	16.00	1.00	5.00	0.8
626113-0200-014	2.00	14.00	5.00	1.00	5.00	0.7
626113-0200-017	2.00	17.00	8.00	1.00	5.00	0.7
626113-0200-020	2.00	20.00	11.00	1.00	5.00	0.7
626113-0200-025	2.00	25.00	16.00	1.00	5.00	0.8
626113-0200-030	2.00	30.00	21.00	1.00	5.00	0.8
626113-0200-035	2.00	35.00	26.00	1.50	5.00	1.3
626113-0201-040	2.00	40.00	31.00	1.50	5.00	1.5
626113-0250-020	2.50	20.00	11.00	1.50	5.00	1.0
626113-0250-025	2.50	25.00	16.00	1.50	5.00	1.1
626113-0250-030	2.50	30.00	21.00	1.50	5.00	1.2
626113-0250-035	2.50	35.00	26.00	1.50	5.00	1.3
626113-0250-040	2.50	40.00	31.00	1.50	5.00	1.5

More lengths on request



Styli with thread

Adapter: M3 XXT titanium
Shaft: tungsten carbide straight
Stylus tip: silicon nitride sphere

For standard applications, with high stiffness and low weight.

Item no.	DK	L	ML	DS	DG	Weight (g)
626113-0152-014	1.50	14.00	5.00	1.00	5.00	0.7
626113-0153-020	1.50	20.00	11.00	1.00	5.00	0.8
626113-0155-030	1.50	30.00	21.00	1.00	5.00	2.8
626113-0201-014	2.00	14.00	5.00	1.00	5.00	0.7
626113-0203-020	2.00	20.00	11.00	1.00	5.00	0.7
626113-0203-030	2.00	30.00	21.00	1.50	5.00	0.8
626113-0203-040	2.00	40.00	31.00	1.50	5.00	1.5
626113-0251-020	2.50	20.00	11.00	1.50	5.00	1.0
626113-0252-030	2.50	30.00	21.00	1.50	5.00	1.2
626113-0251-040	2.50	40.00	31.00	1.50	5.00	1.5

More lengths on request

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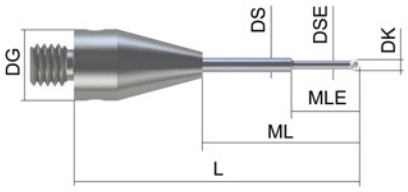
Diamond!Scan

Adapter: M3 XXT titanium
Shaft: ThermoFit® straight
Stylus tip: diamond sphere



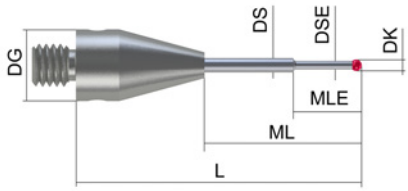
The deviation of the perfect sphere is below 0,25 µm.
The diameter tolerance is +/-20 µm.

Item no.	DK	L	ML	MLE	DS	DSE	DG	Weight .(g)
626113-0109-020	1.00	20	11.00	5,00	1.0	0.80	5.00	1.0
626113-0209-030	2.00	30	21.00	-	1.5	-	5.00	1.2

More lengths on request

Styli with thread

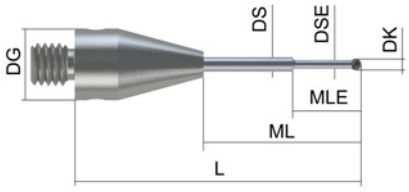
Adapter: M3 XXT titanium
Shaft: tungsten carbide stepped
Stylus tip: ruby sphere



For standard applications, with high stiffness and low weight.

Item no.	DK	L	ML	MLE	DS	DSE	DG	Weight (g)
626113-0025-011	0.25	11.00	5.00	2.50	1.00	0.20	5.00	0.6
626113-0030-025	0.25	25.00	11.00	4.00	0.80	0.20	5.00	0.9
626113-0030-013	0.30	13.00	4.00	2.30	1.00	0.20	5.00	0.6
626113-0030-015	0.30	15.00	6.00	2.30	1.00	0.20	5.00	0.6
626113-0030-018	0.30	18.00	9.00	2.30	1.00	0.20	5.00	0.7
626113-0030-020	0.30	20.00	11.00	2.30	1.00	0.20	5.00	0.7
626113-0040-013	0.40	13.00	4.00	2.30	1.00	0.30	5.00	0.6
626113-0040-015	0.40	15.00	6.00	2.30	1.00	0.30	5.00	0.7
626113-0040-020	0.40	20.00	11.00	2.30	1.00	0.30	5.00	0.7
626113-0050-013	0.50	13.00	4.00	2.30	1.00	0.30	5.00	0.6
626113-0050-015	0.50	15.00	6.00	2.30	1.00	0.30	5.00	0.7
626113-0050-018	0.50	18.00	9.00	2.30	1.00	0.30	5.00	0.7
626113-0050-020	0.50	20.00	11.00	2.30	1.00	0.30	5.00	0.7
626113-0051-024	0.50	24.00	15.00	2.30	1.00	0.30	5.00	0.7
626113-0060-014	0.60	14.00	5.00	4.60	1.00	0.40	5.00	0.6
626113-0060-017	0.60	17.00	8.00	4.60	1.00	0.40	5.00	0.6
626113-0060-020	0.60	20.00	11.00	4.60	1.00	0.40	5.00	0.7
626113-0061-024	0.60	24.00	15.00	4.60	1.00	0.40	5.00	0.8
626113-0080-017	0.80	17.00	8.00	4.80	1.00	0.60	5.00	0.7
626113-0080-020	0.80	20.00	11.00	4.80	1.00	0.60	5.00	0.7
626113-0080-025	0.80	25.00	16.00	4.80	1.00	0.60	5.00	0.8
626113-0080-034	0.80	34.00	25.00	4.10	1.00	0.60	5.00	0.8
626113-0081-035	0.80	35.00	26.00	4.80	1.00	0.60	5.00	0.9
626113-0100-020	1.00	20.00	11.00	5.00	1.00	0.80	5.00	0.7
626113-0100-025	1.00	25.00	16.00	5.00	1.00	0.80	5.00	0.8
626113-0100-030	1.00	30.00	21.00	5.00	1.00	0.80	5.00	0.8
626113-0100-035	1.00	35.00	26.00	5.00	1.00	0.80	5.00	0.9
626113-0100-040	1.00	40.00	31.00	5.00	1.00	0.80	5.00	1.0

More lengths on request



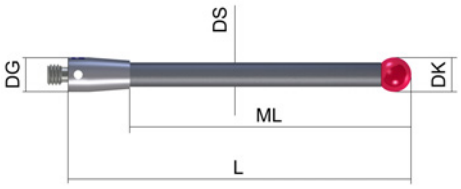
Styli with thread

Adapter: M3 XXT titanium
Shaft: tungsten carbide stepped
Stylus tip: silicon nitride sphere

For standard applications. with high stiffness and low weight.

Item no.	DK	L	ML	MLE	DS	DSE	DG	Weight (g)
626113-0102-020	1.00	20.00	11.00	5.00	1.00	0.80	5.00	0.7
626113-0101-025	1.00	25.00	16.00	5.00	1.00	0.80	5.00	0.8
626113-0101-035	1.00	35.00	26.00	5.00	1.00	0.80	5.00	0.9
626113-0101-040	1.00	40.00	31.00	5.00	1.00	0.80	5.00	1.0
626113-0105-030	1.00	30.00	21.00	5.00	1.00	0.80	5.00	0.9

More lengths on request



Styli with thread

Adapter: M3 XXT titanium
Shaft: ThermoFit® straight
Stylus tip: ruby sphere

ThermoFit® styli with minimized temperature changing
CFK-shaft can be used for long and light weight styli systems.

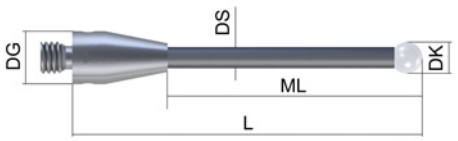
Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0300-025	3.00	25.00	16.00	2.00	5.00	0.7
626103-0300-033	3.00	33.00	24.00	2.00	5.00	0.7
626103-0300-040	3.00	40.00	31.00	2.00	5.00	0.8
626103-0300-042	3.00	42.00	33.00	2.00	5.00	0.8
626103-0300-050	3.00	50.00	41.00	2.00	5.00	0.8
626103-0300-058	3.00	58.00	49.00	2.00	5.00	1.0
626103-0300-059	3.00	59.00	50.00	2.00	5.00	1.0
626103-0300-065	3.00	65.00	56.00	2.00	5.00	1.0
626103-0300-075	3.00	75.00	66.00	2.00	5.00	1.0
626103-0300-084	3.00	84.00	75.00	2.00	5.00	1.6
626103-0300-100	3.00	100.00	91.00	2.00	5.00	1.1
626103-0300-125	3.00	125.00	116.00	2.00	5.00	1.3
626103-0401-050	4.00	50.00	41.00	2.00	5.00	1.0
626103-0500-030	5.00	30.00	21.00	3.50	5.00	1.1
626103-0500-040	5.00	40.00	31.00	3.50	5.00	1.2
626103-0500-050	5.00	50.00	41.00	3.50	5.00	1.4
626103-0500-060	5.00	60.00	51.00	3.50	5.00	1.5
626103-0501-075	5.00	75.00	66.00	3.50	5.00	1.8
626103-0600-050	6.00	50.00	40.00	3.50	5.00	1.5
626103-0610-070	6.00	70.00	61.00	3.50	5.00	1.8
626103-0600-100	6.00	100.00	91.00	3.50	5.00	2.4
626103-0800-030	8.00	30.00	30.00	5.00	5.00	1.9
626103-0830-050	8.00	50.00	50.00	5.00	5.00	2.1
626103-0830-070	8.00	70.00	70.00	5.00	5.00	2.6
626103-0830-100	8.00	100.00	100.00	5.00	5.00	2.7
626103-0800-125	8.00	125.00	125.00	5.00	5.00	2.9

More lengths on request

 © Carl Zeiss 3D Automation GmbH

Diamond!Scan

Adapter: M3 XXT titanium
Shaft: ThermoFit® straight
Stylus tip: diamond sphere



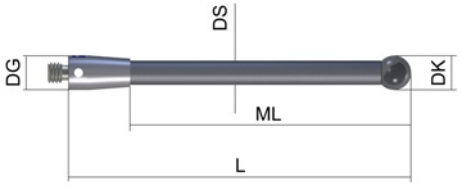
The deviation of the perfect sphere is below 0,25 µm.
The diameter tolerance is +/-20 µm.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0309-033	3.00	33.00	24.00	2.00	5.00	0.7
626103-0309-040	3.00	40.00	31.00	2.00	5.00	0.8
626103-0309-050	3.00	50.00	41.00	2.00	5.00	0.8

More lengths on request

Styli with thread

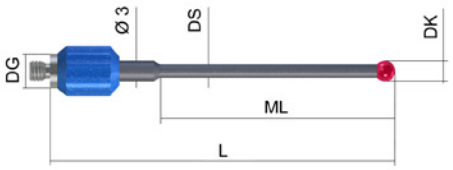
Adapter: M3 XXT titanium
Shaft: ThermoFit® straight
Stylus tip: silicon nitride sphere



ThermoFit® styli with minimized temperature changing
CFK-shaft can be used for long and light weight styli systems.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0301-025	3.00	25.00	16.00	2.00	5.00	0.7
626103-0301-033	3.00	33.00	24.00	2.00	5.00	0.7
626103-0305-040	3.00	40.00	31.00	2.00	5.00	0.8
626103-0301-042	3.00	42.00	33.00	2.00	5.00	0.8
626103-0301-050	3.00	50.00	41.00	2.00	5.00	0.8
626103-0301-058	3.00	58.00	49.00	2.00	5.00	1.0
626103-0301-065	3.00	65.00	56.00	2.00	5.00	1.0
626103-0301-075	3.00	75.00	66.00	2.00	5.00	1.0
626103-0301-084	3.00	84.00	75.00	2.00	5.00	1.6
626103-0301-100	3.00	100.00	91.00	2.00	5.00	2.1
626103-0301-125	3.00	125.00	116.00	2.00	5.00	2.5
626103-0402-050	4.00	50.00	41.00	2.00	5.00	1.0
626103-0502-030	5.00	30.00	21.00	3.50	5.00	1.1
626103-0501-040	5.00	40.00	31.00	3.50	5.00	1.2
626103-0502-050	5.00	50.00	41.00	3.50	5.00	1.4
626103-0501-060	5.00	60.00	51.00	3.50	5.00	1.5
626103-0500-075	5.00	75.00	66.00	3.50	5.00	1.8
626103-0601-050	6.00	50.00	41.00	3.50	5.00	1.5
626103-0600-070	6.00	70.00	61.00	3.50	5.00	1.8
626103-0601-100	6.00	100.00	91.00	3.50	5.00	2.4
626103-0801-030	8.00	30.00	30.00	5.00	5.00	1.9
626103-0801-050	8.00	50.00	50.00	5.00	5.00	2.1
626103-0801-070	8.00	70.00	70.00	5.00	5.00	2.6
626103-0800-100	8.00	100.00	100.00	5.00	5.00	2.7
626103-0801-125	8.00	125.00	125.00	5.00	5.00	2.9

More lengths on request

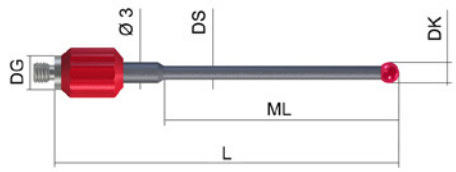


Styli with thread

Adapter: M3 XXT plastic coated
Shaft: ThermoFit® stepped
Stylus tip: ruby sphere

These innovative styli can be assembled without tools and it is a cost-saving alternative to standard styli.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0207-020	2.00	20.00	8.00	1.00	5.00	1.0
626103-0207-025	2.00	25.00	13.00	1.00	5.00	1.0
626103-0207-030	2.00	30.00	18.00	1.00	5.00	1.0
626103-0307-030	3.00	30.00	18.00	2.00	5.00	1.1
626103-0307-040	3.00	40.00	28.00	2.00	5.00	1.2
626103-0307-050	3.00	50.00	38.00	2.00	5.00	1.2
626103-0307-061	3.00	60.50	50.50	2.00	5.00	1.2
626103-0507-040	5.00	40.00	30.00	3.00	5.00	1.5
626103-0507-050	5.00	50.00	40.00	3.00	5.00	1.6
626103-0507-060	5.00	60.00	50.00	3.00	5.00	1.7
626103-0507-075	5.00	75.00	65.00	3.00	5.00	1.9
626103-0807-040	8.00	40.00	30.00	3.00	5.00	2.2

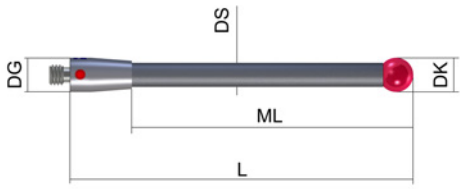


Reference styli

Adapter: M3 XXT plastic coated
Shaft: ThermoFit® stepped
Stylus tip: ruby sphere

This Reference styli has a red plastic coated thread adapter and can be assembled without tools.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0527-030	5.00	30.00	20.00	3.00	5.00	1.3
626103-0527-050	5.00	50.00	40.00	3.00	5.00	1.6



Reference styli

Adapter: M3 XXT titanium
Shaft: ThermoFit® straight
Stylus tip: ruby sphere

The Reference styli are marked with a red dot.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0501-030	5.00	30.00	21.00	3.50	5.00	1.1
626103-0501-050	5.00	50.00	41.00	3.50	5.00	1.4

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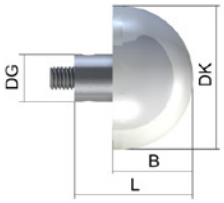
Hemisphere

Adapter: M3 XXT titanium
Shaft: -
Stylus tip: ceramic hemisphere

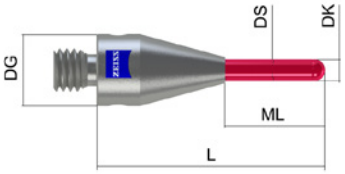


These styli are ideal for measurements, where large spheres and low weight is required.

Item no.	DK	L	B	DG	Weight (g)
626103-1200-012	12.00	12.00	8.00	5.00	2.3
626103-1500-012	15.00	12.00	9.00	5.00	3.3
626103-2000-019	20.00	18.50	13.00	5.00	5.5

Ball cylinder styli

Adapter: M3 XXT titanium
Shaft: -
Stylus tip: ruby cylindrical hemisphere

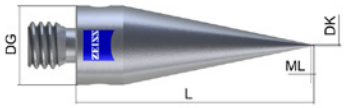


These styli have a cylindrical contact element onto which a hemisphere is attached.

Item no.	DK	L	ML	DS	DG	Weight (g)
626113-0100-016	1.00	16.00	7.00	1.00	5.00	0.7
626113-0151-016	1.50	16.00	7.00	1.50	5.00	0.6

Cone styli

Adapter: M3 XXT titanium
Shaft: tungsten carbide straight
Stylus tip: ruby sphere

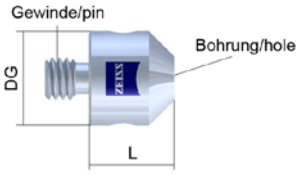


Very delicate stylus with high stiffness, also long with narrow sphere diameter.

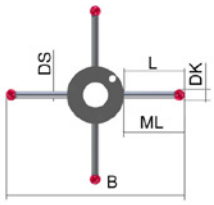
Item no.	DK	L	ML	DG	Weight (g)
626103-0010-015	0.12	15.00	0.12	5.00	0.7
626103-0020-015	0.20	15.00	0.20	5.00	0.7
626103-0030-015	0.30	15.00	0.30	5.00	0.7

Adapter

Tread adapters allow you to connect components from different systems.



Item no.	from (pin)	to (hole)	L	DG	Weight (g)
602030-8341-000	3.00	M2	5.00	4.00	0.5
602030-8345-000	2.00	M3	5.00	4.00	1.0
602030-0315-000	5.00	M3	10.00	11.00	5.0
602030-0215-000	5.00	M2	10.00	11.00	5.0

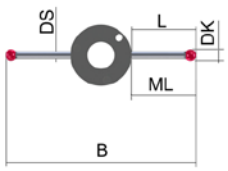


Star styli small

Adapter: clamping system M3 XXT titanium
Shaft: tungsten carbide straight
Stylus tip: ruby sphere

Extremely light and small star styli.

Item no.	DK	L	ML	DS	B	DG	Weight (g)
626103-0100-018	1.00	5.00	5.00	0.80	18.00	5.00	0.9
626103-0150-018	1.50	5.00	5.00	1.00	18.00	5.00	1.0
626103-0150-025	1.50	8.50	8.50	1.00	25.00	5.00	1.1
626103-0200-018	2.00	5.00	5.00	1.00	18.00	5.00	0.9
626103-0200-025	2.00	8.50	8.50	1.00	25.00	5.00	1.1

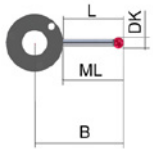


T-styli small

Adapter: clamping system M3 XXT titanium
Shaft: tungsten carbide straight
Stylus tip: ruby sphere

Extremely light and small T-styli.

Item no.	DK	L	ML	DS	B	DG	Weight (g)
626103-0100-218	1.00	5.00	5.00	0.80	18.00	5.00	1.0
626103-0150-218	1.50	5.00	5.00	1.00	18.00	5.00	1.0
626103-0150-225	1.50	8.50	8.50	1.00	25.00	5.00	1.1
626103-0200-218	2.00	5.00	5.00	1.00	18.00	5.00	1.0
626103-0200-225	2.00	8.50	8.50	1.00	25.00	5.00	1.1

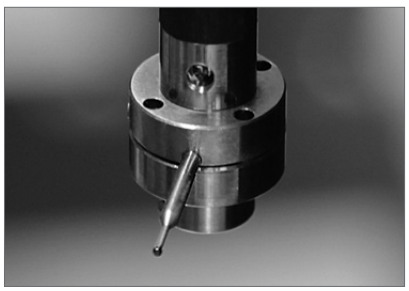


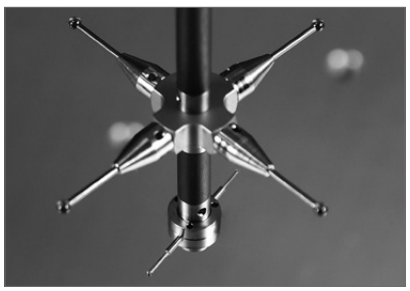
L-styli small

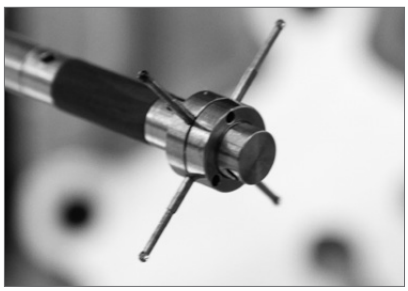
Adapter: clamping system M3 XXT titanium
Shaft: tungsten carbide straight
Stylus tip: ruby sphere

Extremely light and small L-styli.

Item no.	DK	L	ML	DS	B	DG	Weight (g)
626103-0100-418	1.00	5.00	5.00	0.80	9.00	5.00	0.9
626103-0150-418	1.50	5.00	5.00	1.00	9.00	5.00	0.9
626103-0150-425	1.50	8.50	8.50	1.00	12.50	5.00	1.0
626103-0200-418	2.00	5.00	5.00	1.00	9.00	5.00	0.9
626103-0200-425	2.00	8.50	8.50	1.00	12.50	5.00	1.0







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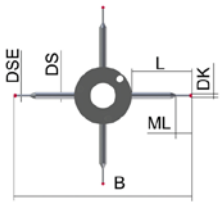
Star styli small

Adapter: clamping system M3 XXT titanium
Shaft: tungsten carbide stepped
Stylus tip: ruby sphere

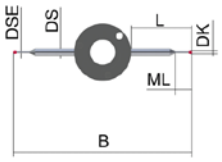


Extremely light and small star styli.

Item no.	DK	L	ML	DS	DSE	DG	Weight (g)
626103-0030-016	0.30	4.00	2.30	1.00	0.20	5.00	0.9
626103-0050-016	0.50	4.00	2.30	1.00	0.30	5.00	0.9
626103-0050-025	0.50	8.50	2.30	1.00	0.30	5.00	1.2
626103-0060-018	0.60	5.00	4.60	1.00	0.40	5.00	0.9
626103-0060-025	0.60	8.50	4.60	1.00	0.40	5.00	1.1
626103-0080-018	0.80	5.00	4.80	1.00	0.60	5.00	0.8
626103-0080-025	0.80	8.50	4.80	1.00	0.60	5.00	1.0
626103-0100-025	1.00	8.50	5.00	1.00	0.80	5.00	1.1

T-styli small

Adapter: clamping system M3 XXT titanium
Shaft: tungsten carbide stepped
Stylus tip: ruby sphere

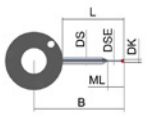


Extremely light and small T-styli.

Item no.	DK	L	ML	DS	DSE	DG	Weight (g)
626103-0030-216	0.30	4.00	2.30	1.00	0.20	5.00	0.9
626103-0030-225	0.30	8.50	2.30	1.00	0.20	5.00	1.0
626103-0050-216	0.50	4.00	2.30	1.00	0.30	5.00	0.9
626103-0050-225	0.50	8.50	2.30	1.00	0.30	5.00	1.0
626103-0060-218	0.60	5.00	4.60	1.00	0.40	5.00	0.9
626103-0060-225	0.60	8.50	4.60	1.00	0.40	5.00	1.0
626103-0080-218	0.80	5.00	4.80	1.00	0.60	5.00	0.9
626103-0080-225	0.80	8.50	4.80	1.00	0.60	5.00	1.0
626103-0100-225	1.00	8.50	5.00	1.00	0.80	5.00	1.0

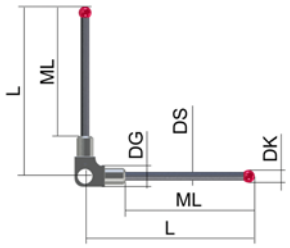
L-styli small

Adapter: clamping system M3 XXT titanium
Shaft: tungsten carbide stepped
Stylus tip: ruby sphere



Extremely light and small L-styli.

Item no.	DK	L	ML	DS	DSE	DG	Weight (g)
626103-0030-416	0.30	4.00	2.30	1.00	0.20	5.00	0.9
626103-0030-425	0.30	8.50	2.30	5.00	0.20	5.00	1.0
626103-0050-416	0.50	4.00	2.30	1.00	0.30	5.00	0.9
626103-0050-425	0.50	8.50	2.30	1.00	0.30	5.00	1.0
626103-0060-418	0.60	5.00	4.60	1.00	0.40	5.00	0.9
626103-0060-425	0.60	8.50	4.60	1.00	0.40	5.00	0.9
626103-0080-418	0.80	5.00	4.80	1.00	0.60	5.00	0.9
626103-0080-425	0.80	8.50	4.80	1.00	0.60	5.00	0.9
626103-0100-425	1.00	8.50	5.00	1.00	0.80	5.00	1.0

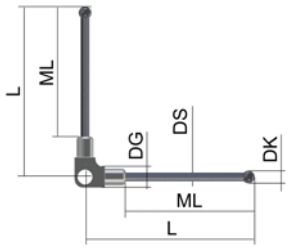


1/2 star styli 90°

Adapter: clamping system M3 XXT
Shaft: ThermoFit® straight
Stylus tip: ruby sphere

Are used to assemble a 1/2 star styli or a L-styli.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0303-020	3.00	20.00	11.00	2.00	5.00	1.4
626103-0303-030	3.00	30.00	21.00	2.00	5.00	1.5
626103-0303-040	3.00	40.00	31.00	2.00	5.00	1.6

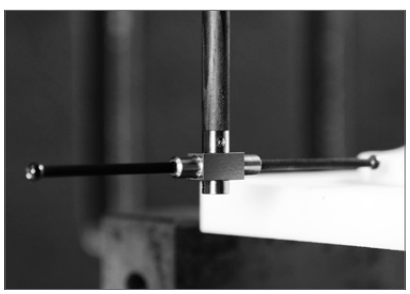


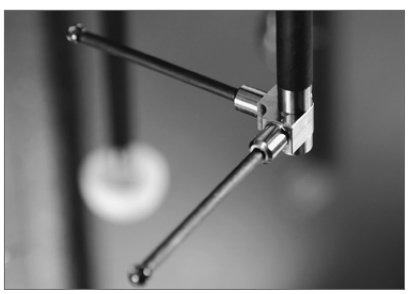
1/2 star styli 90°

Adapter: clamping system M3 XXT
Shaft: ThermoFit® straight
Stylus tip: silicon nitride sphere

Are used to assemble a 1/2 star styli or a L-styli.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0313-020	3.00	20.00	11.00	2.00	5.00	1.4
626103-0313-030	3.00	30.00	21.00	2.00	5.00	1.5
626103-0313-040	3.00	40.00	31.00	2.00	5.00	1.6

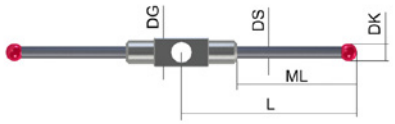




 © Carl Zeiss 3D Automation GmbH

T-styli

Adapter: clamping system M3 XXT
Shaft: ThermoFit® straight
Stylus tip: ruby sphere

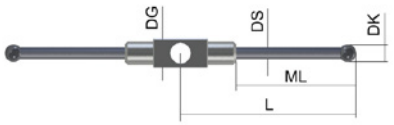


Are used to assemble a 1/2 star styli or T-styli.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0304-020	3.00	20.00	11.00	2.00	5.00	1.4
626103-0304-030	3.00	30.00	21.00	2.00	5.00	1.5
626103-0304-040	3.00	40.00	31.00	2.00	5.00	1.6

T-styli

Adapter: clamping system M3 XXT
Shaft: ThermoFit® straight
Stylus tip: silicon nitride sphere

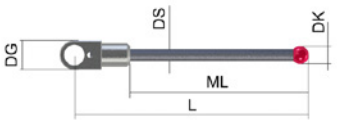


Are used to assemble a 1/2 star styli or T-styli.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0314-020	3.00	20.00	11.00	2.00	5.00	1.4
626103-0314-030	3.00	30.00	21.00	2.00	5.00	1.5
626103-0314-040	3.00	40.00	31.00	2.00	5.00	1.6

L-styli

Adapter: clamping system M3 XXT
Shaft: ThermoFit® straight
Stylus tip: ruby sphere

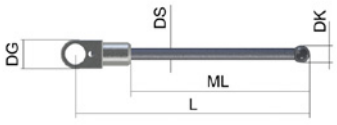


Are used to assemble a 1/4 star styli or a L-styli.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0302-020	3.00	20.00	11.00	2.00	5.00	0.8
626103-0302-030	3.00	30.00	21.00	2.00	5.00	0.9
626103-0302-040	3.00	40.00	31.00	2.00	5.00	1.0

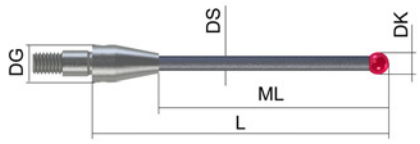
L-styli

Adapter: clamping system M3 XXT
Shaft: ThermoFit® straight
Stylus tip: silicon nitride sphere



Are used to assemble a 1/4 star styli or a L-styli.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0312-020	3.00	20.00	11.00	2.00	5.00	0.8
626103-0312-030	3.00	30.00	21.00	2.00	5.00	0.9
626103-0312-040	3.00	40.00	31.00	2.00	5.00	1.0

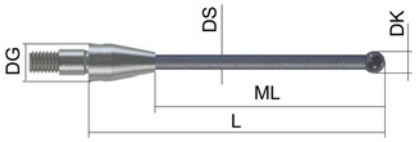


Clamping styli

Adapter: M3 XXT titanium
Shaft: ThermoFit® straight
Stylus tip: ruby sphere

These styli can be used to clamp connecting elements of the M3 XXT stylus system.

Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0301-020	3.00	20.00	11.00	2.00	5.00	0.7
626103-0301-030	3.00	30.00	21.00	2.00	5.00	0.8
626103-0301-040	3.00	40.00	31.00	2.00	5.00	0.8

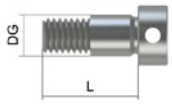


Clamping styli

Adapter: M3 XXT titanium
Shaft: ThermoFit® straight
Stylus tip: silicon nitride sphere

These styli can be used to clamp connecting elements of the M3 XXT stylus system.

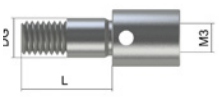
Item no.	DK	L	ML	DS	DG	Weight (g)
626103-0311-020	3.00	20.00	11.00	2.00	5.00	0.7
626103-0311-030	3.00	30.00	21.00	2.00	5.00	0.8
626103-0311-040	3.00	40.00	31.00	2.00	5.00	0.8



Clamping screws

This screw is used to assemble cubes or knuckle joints to a TL2 adapter plate or a TL1/TL3 adapter plate with an extension.

Item no.	DG	L	Weight (g)
626103-6110-004	3.50	8.00	0.5



Clamping screws with M3

This special screw is used to assemble cubes or knuckle joints to a TL2 adapter plate or a TL1/TL3 adapter plate with an extension. An additional M3 XXT stylus can be attached, e.g. to assemble a star stylus.

Item no.	DG	L	Weight (g)
626103-6110-005	3.50	8.00	0,7

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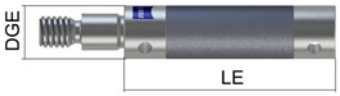
ThermoFit® clamping extensions

This clamping extension can be used to install cubes, joints or styli of the M3 XXT clamping system. Light and bending resistant design was especially considered during material selection. The base body is made of a titanium alloy. The tube is made of light and bending resistant carbon fiber and is exclusively made for ZEISS.

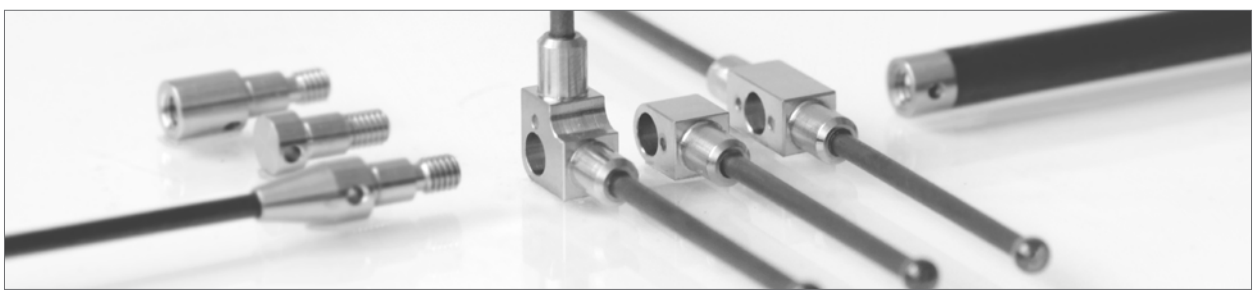


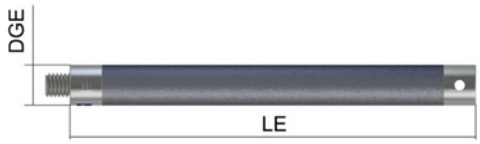
Item no.	LE	DGE	Weight (g)
626103-5020-010	20.00	5.00	1.3
626103-5045-010	45.00	5.00	1.5

ThermoFit® clamping extensions with cone receiver

This clamping extension can be used to mount cubes, joints or styli of the M3 XXT clamping system. A cone receiver is fitted to the end of each M3 XXT extension, into which the connecting elements can be inserted with a cone adapter. Particular importance was given to a lightweight and torsionally rigid design when selecting the material. The extension is distinguished by the ThermoFit® technology, which has almost no expansion or torsion in the event of fluctuations in the ambient temperature. The base body consists of a high-strength titanium alloy.

Item no.	LE	DGE	Weight (g)
626103-5020-015	21.00	5.00	1.4
626103-5045-015	46.00	5.00	1.7





ThermoFit® extensions

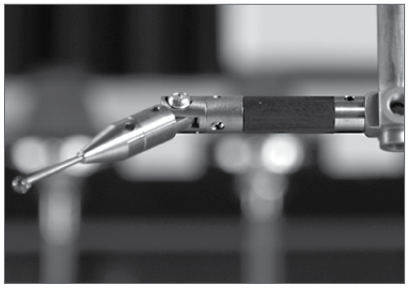
These light weight and high stiffness stylus extensions are made of a special ThermoFit® carbon fibre tube and two high quality titanium end caps. They have been designed especially for the ZEISS VAST XXT probe.

Item no.	LE	DGE	Weight (g)
626103-5020-000	20.00	5.00	1.2
626103-5025-000	25.00	5.00	1.3
626103-5030-000	30.00	5.00	1.3
626103-5040-000	40.00	5.00	1.4
626103-5050-000	50.00	5.00	1.5
626103-5060-000	60.00	5.00	1.7
626103-5065-000	65.00	5.00	1.7
626103-5075-000	75.00	5.00	1.7
626103-5080-000	80.00	5.00	1.8
626103-5100-000	100.00	5.00	2.0
626103-5130-000	130.00	5.00	2.5
626103-5150-000	150.00	5.00	2.7

ThermoFit® extensions with cone receiver

A cone receiver is securely integrated at the end of this M3 XXT extension, into which the connecting elements can be inserted with a cone adapter. The extension is distinguished by the ThermoFit® technology, which has almost no expansion or torsion in the event of fluctuations in the ambient temperature.

Item no.	LE	DGE	Weight (g)
626103-5020-005	21.00	5.00	1.2
626103-5025-005	26.00	5.00	1.3
626103-5030-005	31.00	5.00	1.4
626103-5040-005	41.00	5.00	1.5
626103-5050-005	51.00	5.00	1.6
626103-5060-005	61.00	5.00	1.7
626103-5070-005	71.00	5.00	1.8
626103-5080-005	81.00	5.00	1.9
626103-5100-005	101.00	5.00	2.1



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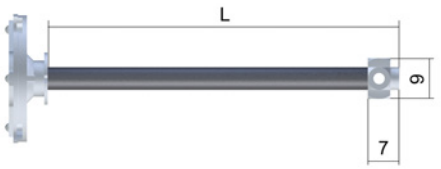
VAST® XXT TL1/TL3 with star cube

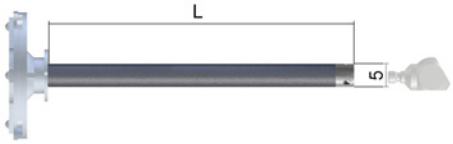
These adapter plates are provided with an encoded ID-chip for reliable identification by the CMM. They are equipped with a fixed-mounted ThermoFit® extension with an aligned 5-sided cube. This enables extremely light star styli to be assembled.



Item no.	System	L	Weight (g)
626103-8031-055	VAST XXT TL1	55.00	6.3
626103-8033-055	VAST XXT TL3	55.00	6.3

VAST® XXT TL1/TL3 with extension and cone receiver

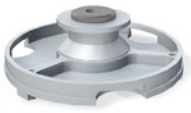
These adapter plates are provided with an encoded ID-chip for reliable identification by the CMM. They are equipped with a fixed-mounted ThermoFit® extension. A cone receiver is fitted to the end of the M3 XXT extension. With rotary connecting element, individual stylus systems can be assembled.



Item no.	System	L	Weight (g)
626103-8031-053	VAST XXT TL1	53.00	5.5
626103-8033-053	VAST XXT TL3	53.00	5.5

VAST® XXT TL1

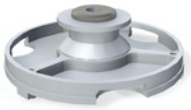
The adapter plate for the VAST® TL1 probe can be used universally. Individual stylus systems can be assembled with extensions, connecting pieces and styli. The adapter plate is equipped with an encoded ID-chip.



Item no.	Description	Weight (g)
620161-8055-000	Stylus holder ZSH-28-A-0-M3 for VAST XXT TL1	4.6

VAST® XXT TL3

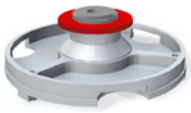
The adapter plate for the VAST® TL3 probe can be used universally. Individual stylus systems can be assembled with extensions, connecting pieces and styli. The adapter plate is equipped with an encoded ID-chip.



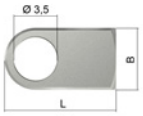
Item no.	Description	Weight (g)
620161-8075-000	Stylus holder ZSH-28-B-0-M3 for VAST XXT TL3	4.6

VAST® XXT Reference stylus holder

The reference plate and the reference stylus are used for calibration. The reference plate is encoded with an ID-chip and has a red marking.



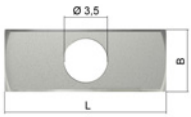
Item no.	Description	Weight (g)
620161-8058-000	Reference stylus holder ZSH-28-A-REF-TL1-M3 for XXT TL1	4.6
620161-8078-000	Reference stylus holder ZSH-28-B-REF-TL3-M3 for XXT TL3	4.6



Cube 90 degree, M3 XXT, single

This cube can be mounted to a VAST® XXT extension or a TL2 adapter plate by using a clamping screw, clamping extension or a clamping stylus. One M3 XXT styli can be laterally attached.

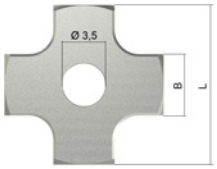
Item no.	B	L	MAT	Weight (g)
626103-6110-001	5.00	6.50	titanium	0.6



Cube 180 degree, M3 XXT, double

This double-sided cube can be mounted to a VAST® XXT extension or a TL2 adapter plate by using a clamping screw, clamping extension or a clamping stylus. Two M3 XXT styli can be laterally attached in 180 degree angle.

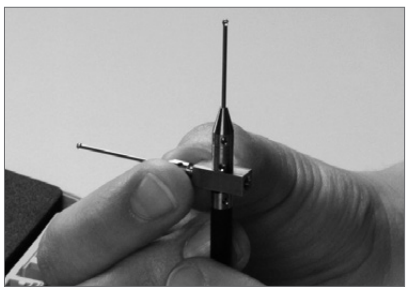
Item no.	B	L	MAT	Weight (g)
626103-6110-002	5.00	13.00	titanium	1.1

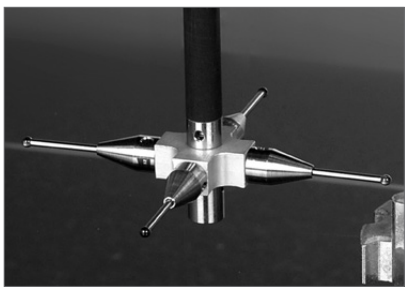


Cube, M3 XXT, four-sided

This four-sided cube can be mounted to a VAST® XXT extension or a TL2 adapter plate by using a clamping screw, clamping extension or a clamping stylus. Four M3 XXT styli can be laterally attached in 90 degree angle.

Item no.	B	L	MAT	Weight (g)
626103-6110-003	5.00	13.00	titanium	1.8





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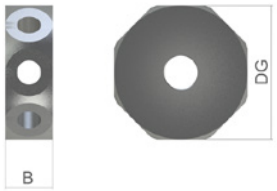
Cube, M3 XXT, six-sided

This six-sided cube can be mounted to a VAST® XXT extension or a TL2 adapter plate by using a clamping screw, clamping extension or a clamping stylus. Six M3 XXT styli can be laterally attached in 60 degree angles.

Item no.	DG	B	MAT	Weight (g)
626103-6110-006	12.00	5.00	titanium	1.8

Cube, M3 XXT, eight-sided

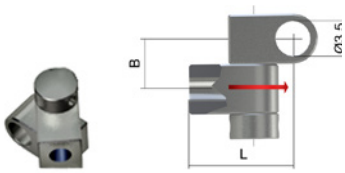
This eight-sided cube can be mounted to a VAST® XXT extension or a TL2 adapter plate by using a clamping screw, clamping extension or a clamping stylus. Eight M3 XXT styli can be laterally attached in 45 degree angles.



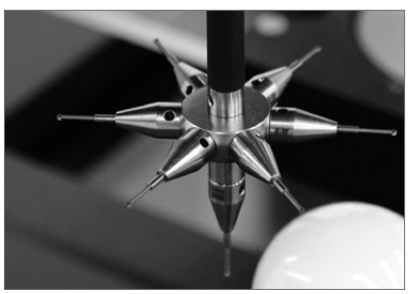
Item no.	DG	B	MAT	Weight (g)
626103-6110-007	14.00	5.00	titanium	2.3

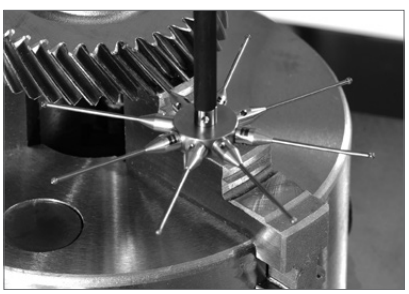
Knuckle joint, M3 XXT

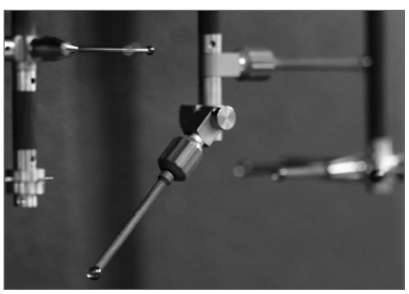
This joint can be mounted to a VAST® XXT extension or a TL2 adapter plate by using a clamping screw, clamping extension or a clamping stylus. It is 360 degree swiveled and an angle can be adjusted. One M3 XXT stylus can be mounted.



Item no.	L	B	MAT	Weight (g)
626103-6180-001	10.00	5.00	titanium	1.7







Rotary connecting elements M3 XXT

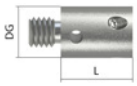
New options for building your stylus systems

Our original ZEISS rotary joints are based on a backlash-free conical connection. Three robust M1.2 threaded pins with torx interfaces provide high clamping forces. The rotary joints can be easily adjusted even after repeated assembly and disassembly of the stylus system and hold their styli securely.

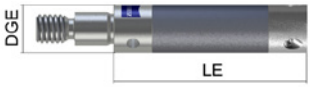
- **Quick and secure assembly**
- **Optimum accessibility through low-profile type of construction**
- **Easy to adjust**

Articles with cone receiver

Rotary joint receiver
626103-6180-002



Clamping extensions
626103-5020-015 / 626103-5045-015

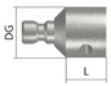


Extensions
626103-5xxx-005

Adapter plate with extensions
626103-8031-053 / 626103-8032-076 / 626103-8033-053

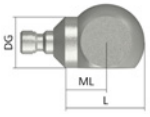
Articles with cone adapter

Rotary joint
626103-6180-011

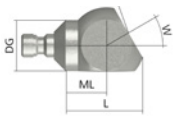


Knuckle joint
626103-6180-021

Angle block, blank
626103-6020-000



Angle block
626103-6020-xxx



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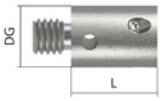
Rotary joint receiver M3 XXT

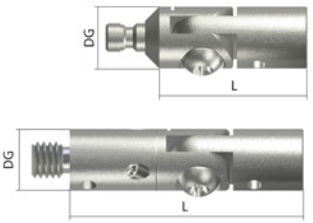
This receiver has the usual M3 XXT threaded receiver on one side and a cone receiver on the other. Various connecting elements with a cone adapter can be inserted into this and are backlash-free.



Item no.	L	DG	Weight (g)
626103-6180-002	7.00	5.00	0.6

Knuckle joint M3 XXT, rotary

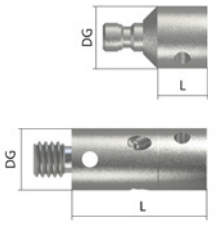
The knuckle joint can accommodate a stylus or an extension with M3 XXT thread. The knuckle joint has an adjustable angular range of 0°-/+ 90° and is directly inserted in a cone receiver. As a result, any desired spatial angles can be set.



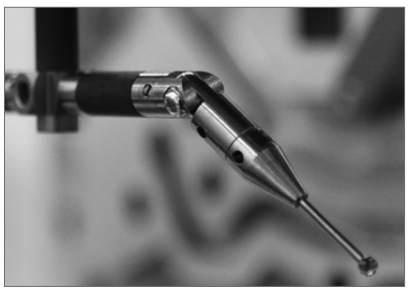
Item no.		L	DG	Weight (g)
626103-6180-021	without rotary joint receive	12.00	5.00	1.1
626103-6180-020	with rotary joint receive	19.00	5.00	1.6

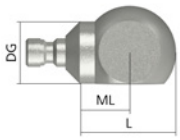
Rotary joint M3 XXT, rotary

Any desired M3 components can be mounted with the M3 XXT rotary joint made of titanium.



Item no.		L	DG	Weight (g)
626103-6180-011	without rotary joint receive	4.00	5.00	0.4
626103-6180-010	with rotary joint receive	11.00	5.00	0.9

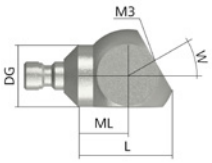




Angle block M3 XXT, blank, rotary

With the blank angle, you can manufacture angle pieces quickly and easily by yourself. It is inserted in a cone receiver.

Item no.		L	ML	DG	Weight (g)
626103-6020-000	blank	7.75	4.00	5.00	1.0



Angle block M3 XXT, rotary

We can manufacture your desired angle piece according to your specifications. Send us an e-mail with your desired angle block to order@3d-net.de.

Item no.		L	ML	DG	Weight (g)
626103-6020-xxx	angle 0°-90°	7.75	4.00	5.00	0.9

Customized angle block

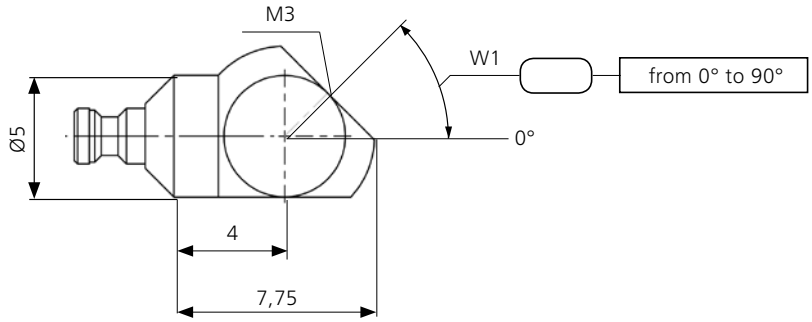
We manufacture your stylus on request.

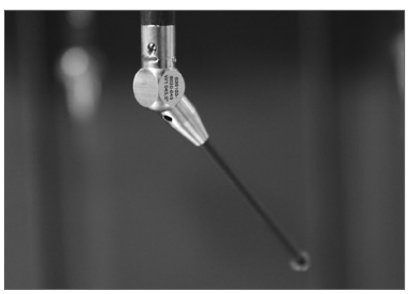
You will find prepared forms in our webshop at www.probes.zeiss.com. You can also send us a fax on +49 7361 6336 29 or an email to orders@3d-net.de.

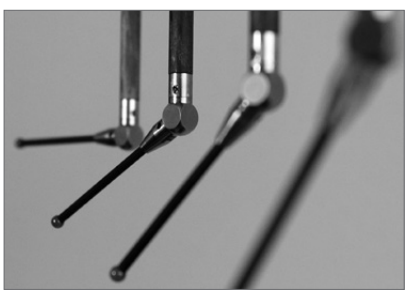
Please state your desired angle block between 0° and 90° in your inquiry as well as the quantity required.

Angle M3 XXT with cone adapter

Qty.: ____







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We design your stylus system

Our experts will make a design in CAD and send you a quotation.

- draw a sketch of the stylus system you need
- add your contact details
- fax the request to +49 7361 6336 29
- or fill in the form in our webshop www.probes.zeiss.com

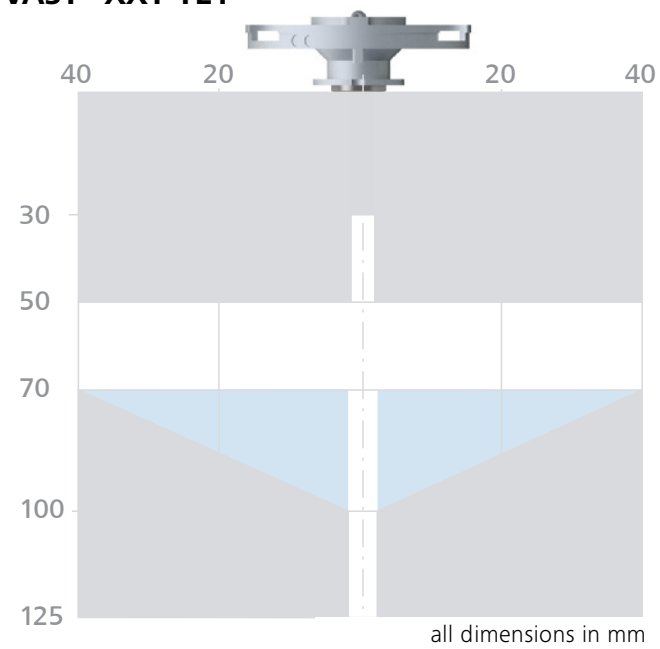
area of reduced dynamic

area not allowed

Shaft material (SMAT)
Tungsten carbide (HM)
Carbon fibre / ThermoFit® (TF)

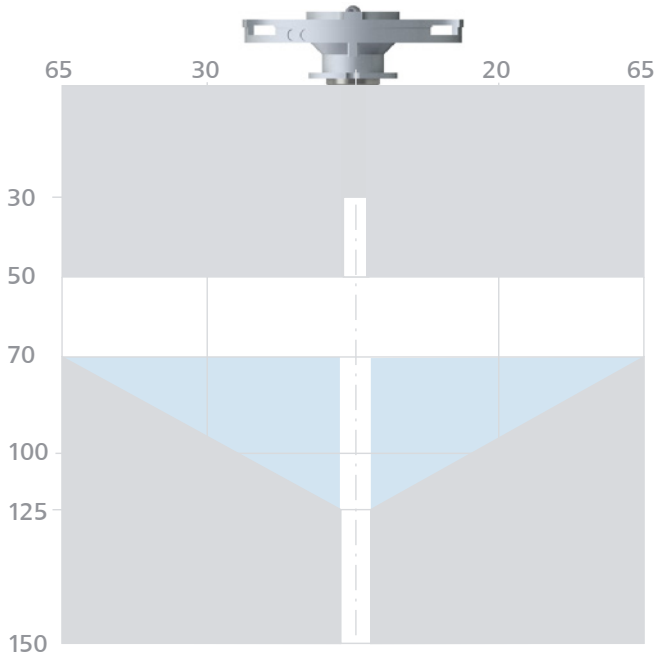
Sphere material (TMAT)
Ruby (R)
Silicon nitride (SiN)

VAST® XXT TL1



all dimensions in mm

VAST® XXT TL3



Company:

Department:

Name, First:

Address:

Zip / City:

Phone:

E-mail:

Fax:

Screw set for cone receivers M3 XXT

This spare parts set consists of six M1,2 Torx screws for fixing the conical connection of rotary connecting elements.

Item no.	Description
626119-0001-041	Set of replacement screws for cone receiver, DG5, M3XXT

Micro torque screwdriver for conical connections

This 0.05 Nm TX1 micro torque screwdriver is especially suitable for our rotary M3 XXT connecting elements. The blade is exchangeable and available in the practical set.

Item no.	Description
626109-0054-000	Micro torque screwdriver 0,05Nm, TX1
626109-0055-000	Replacement blade TX1 for micro-torque-screwdriver
626109-0058-000	Set of replacement blades TX1 for micro-torque-screwdriver, 5pcs.

Torx screwdrivers for conical connections M3 XXT

This set consists of five T1 Torx screwdrivers. They are especially suitable for the rotary M3 XXT connecting elements.

Item no.	
626109-0059-000	Set of torx screwdriver T1, angled, 5 pieces

Pin wrench ZEISS standard

A pin wrench is used for the assembly and disassembly of styli. It can be used on both ends.

Item no.	Description
000000-0015-323	pin wrench, 1,1

Hex wrenches

This hexagon wrench is used to tighten cylinder-head screws with a hexagon socket.

Item no.	Description
602030-0042-000	Hex wrench DIN 911, BSW 0,9
602030-0002-000	Hex wrench DIN 911, BSW 1,5
000000-0015-245	Hex wrench DIN 911, BSW 2
602030-0021-000	Hex wrench DIN 911, BSW 2,5
000000-0015-247	Hex wrench DIN 911, BSW 3
000000-0015-248	Hex wrench DIN 911, BSW 4

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XXT stylus assembly pliers

Styli, screws and extensions can be easily mounted in the XXT system with these specially made stylus assembly pliers. High tightening torques are transmitted via two integral steel pins.

Item no.	Description
626109-0056-000	XXT styli assembly pliers
626109-0057-000	Set XXT styli assembly pliers

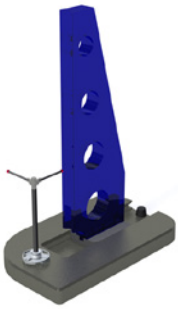
XXT-styli assembling aid

The XXT-styli assembling aid is used to hold a stylus extension while mounting a stylus with a pin wrench or a hook wrench. The assembling aid is being hold laterally to the stylus extension.

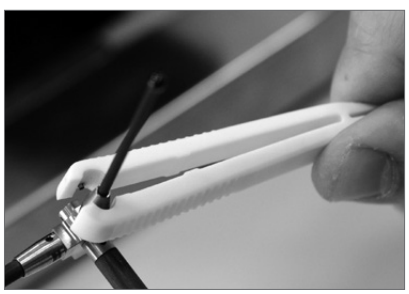
Item no.	Description
626109-0026-000	XXT-styli assembling aid

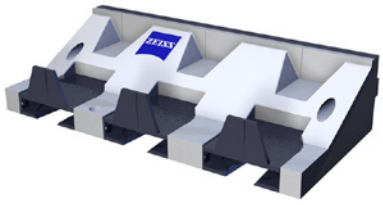
Set up device VAST XXT

Set up device for star styli M3 XXT. With this device, star styli can be adjusted in 30° steps, before they are attached to your CMM. With the adapter steps of 15° can be adjusted.



Item no.	Description
626109-9140-000	Set up device VAST XXT
626109-9140-010	Adapter 15° VAST XXT

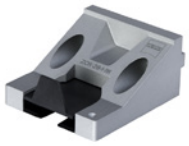




Probe socket VAST® XXT

This probe socket can hold up to three ZEISS VAST® XXT adapter plates. It can be attached to all available ZEISS Multi Sensor Racks (MSR) or directly to the DuraMax®.

Item no.	Description
620161-8510-000	Probe socket with 3 slots for VAST XXT probe adapters



Single Probe Socket VAST® XXT

This probe socket can hold one ZEISS VAST® XXT adapter plate. It can be attached to all available ZEISS Multi Sensor Racks (MSR) or directly to the DuraMax®.

Item no.	Description
620161-8511-000	Probe socket with 1 slot, ZCR-28-1-1W

XXT desktop sensor rack

The practical holder with four sockets for XXT adapter plates is used for the assembly and provision of styli. Its high quality XXT stylus systems can be attached for intermediate storage and are therefore safe from damage. The stylus holder can be extended to six sockets (stylus holder can only be used to hold stylus systems and not as a changer rack on the CMM).

Item no.	Description
626119-0003-000	XXT desktop sensor rack, 4 sockets

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Probe cabinet MSC for XXT / DuraMax®

This robust probe cabinet is suitable for storing stylus systems with VAST® XXT adapter plates. The stable sheet cabinet dimensions are 1000 x 400 x 2000 mm (WxDxH). It is lockable and painted light grey. Two mounting bars with 16 XXT probe sockets, one bar with two tool trays (max carrying capacity 60 kg) and one shelf are included. Position, height and depth of the bars are adjustable.

Item no.	Description
626100-9026-000	Probe cabinet MSC for DuraMax with 16 sockets XXT
626100-9015-000	Probe cabinet MSC with sheet doors, without sockets
626100-9015-100	Probe cabinet MSC with class doors without sockets , incl. 5 mounting bars

Design your own MSC

You will find prepared forms in our webshop at www.probes.zeiss.com

	Item no.	Description
	626100-8023-000	Ground level compartment for the probe cabinet MSC, powder-coated, max. carrying capacity: 60kg, width 990 mm
	626100-8024-000	Additional level bar for the probe cabinet MSC effective width max. 930 mm

	Item no.	Description
	626100-8011-010	Probe socket MT/VAST for MSC, width 100 mm
	626100-8011-020	Probe socket XTR for MSC, width 100 mm
	626100-8012-000	Probe socket ST/ST3 for MSC, width 80 mm
	626100-8013-000	Probe socket DSE for MSC, width 130 mm
	626100-8014-000	Probe socket RDS for MSC, width 100 mm
	626100-8015-000	Probe socket XXT for MSC, width 50 mm
	626100-8021-000	Pallet for 67 styli M5 for MSC width 287 x depth 205 mm
	626100-8022-000	Tool tray for MSC, width 210 mm x depth 105 mm

Reference sphere holder set RSH-compact for DuraMax®

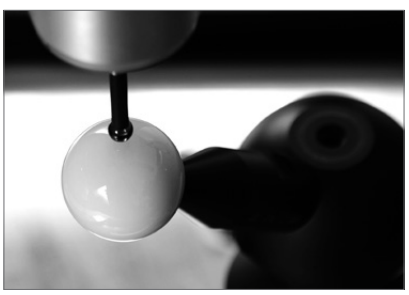
The RSH-compact reference sphere holder has an overall height of 214 mm. Its small stand is optimally customized to the requirements of DuraMax®. The set is supplied in a practical transportation and storage case and consists of a 30 mm ceramic reference sphere with certificate, a reference sphere holder with fixing material, suitable tools and an informative Quick Start Guide. A basic set without a reference sphere is also available.

Item no.	Description
600332-9268-000	Reference sphere holder set RSH-compact with reference sphere
600332-9168-000	Reference sphere RSH-compact without reference sphere

Reference sphere RS

These reference spheres can be mounted on all RSH systems. They are provided with a ceramic sphere and an M6 threaded connection. The length from the base body to the middle of the sphere is 70.1 mm. All reference spheres are supplied with a certificate.

Item no.	System	DK	L	DG	TMAT	Weight (g)
600332-8443-000	6.00	8.000	74.10	18.00	ceramics	91.0
600332-8444-000	6.00	15.000	77.60	18.00	ceramics	100.0
600332-8445-000	6.00	25.000	82.60	18.00	ceramics	114.0
600332-8446-000	6.00	30.000	85.10	18.00	ceramics	132.0



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DuraMax-Check

DuraMax-Check is a procedure for checking DuraMax® coordinate measuring machines with tactile sensors in accordance with standards. The calibrated artifact developed expressly for the DuraMax CMM is supplied with the associated evaluation software. DuraMax-Check can be used to check a DuraMax coordinate measuring machine compliant to DIN EN ISO 10360-2, 10360-4 and VDI/VDE 2617 Sheet 6.1 with respect to the following:

- Probing error of the probing system
- Scanning error of the probing system
- Length measuring error

The errors are checked by tactile sensing.

The base of the nickel-plated test item is a rigid base plate on which high-precision, calibrated material measures are mounted:

- A special ring gauge with a diameter of 30 mm
- A precision ceramic sphere with a diameter of 25 mm
- Two parallel gauge blocks, 50 mm and 300 mm long

The magnetic fastenings of the parallel gauge blocks and adjusting ring make it possible to set up and dismantle the artifact in just a few simple steps. Special tools for mounting the sphere are included in the scope of supply. All accessories are neatly stowed away in a case for optimal storage and protection.Artifact calibrationDAkkS calibration or, optionally, ZEISS factory calibration of all gauge blocks:

- Ring gauge
- Precision sphere
- Two parallel gauge blocks

A machine-dedicated control and evaluation software is available for coordinate measuring machines operated under CALYPSO®. It features:

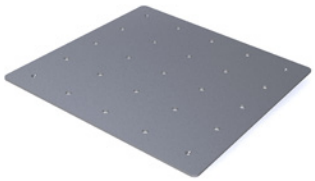
- CNC run of measurements
- Evaluation compliant to standards
- Additional analysis of the measurement results based on monitoring factors
- Statistical processing of measurement results

Item no.	Description
626106-9320-000	DuraMax-Check
000000-2032-470	DAkkS calibration DuraMax-Check
626001-0130-022	Software DuraMax-Check for SW CALYPSO

Loading table for DuraMax®

The manual loading table for DuraMax® with Shop floor base enables ergonomic loading with heavy parts, since the table can be extended to the front. Collisions with the CMM can be avoided for crane loading. The loading device has an aluminium profile construction and is equipped with a telescopic extension and an electro-hydraulically operated lifting mechanism for system pallets 500 x 500 mm. The loading table can only be used in combination with an original ZEISS changeover interface set 500 x 500. The maximum load carrying capacity is 50 kg and requires installation by our service personnel.

Item no.	Description
626109-9221-000	Loading table DuraMax ShopFloor



Cover plate DuraMax®

This corrosion-resistant cover plate can be attached directly to your DuraMax®. Thus your measuring table is protected and you can mount the pallet system respectively the interface system on it.

Item no.	Description
626109-9210-010	Cover plate for DuraMax table

Cleaning material

Cleanliness is essential for precision measurements. The workpiece must be cleaned before the measurement in order to obtain optimum measuring results. Our cleaning material has been tested by users in practice and is recommended for all ZEISS measuring machines.

Item no.	Description
000000-1359-469	Microfiber cleaning tissue
626119-0010-006	Polyamide-strec-glove with PU coated palm (size XL).2 pair
000000-0424-218	Cleaning cloths Absorbond TX409,9“ x9“ (300 pcs.)

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Handysurf E-35-B

Handysurf makes it simple and mobile, whether in the receiving control, the shop floor or in the final inspection. Because this compact handheld measuring unit is coming on the spot for the workpieces. Measurements can be done easily every position. Of course, it disposes all current surface standards and evaluates all common characteristic values. You can see your measured values instantly on the easily legible and high-contrast LCD-Display. A printer is optionally available for the data output. Measuring, evaluating and logging surface roughness are much easier, than with the Handysurf E-35B.

Item no.	Description
625006-8191-000	Handysurf E-35B

Handysurf holder Set for DuraMax®

Holder for the roughness unit Handysurf. The support is assembled at the side of the control panel, directly to the measurement table of DuraMax®. The 3D hinged bracket is removable and can be easily mounted on the table. The set includes a Handysurf, cable and Sofware.

Item no.	Description
626109-9230-100	Handysurf holder set for DuraMax, incl. Handysurf, cable and software
626109-9230-000	Handysurf holder for DuraMax

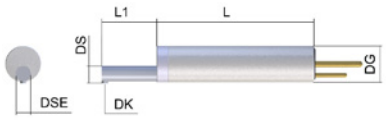
Styli Handysurf E-DT-SM 10A

These styli are the ideal addition for your Handysurf E-35B. They are easily exchangeable and thus expand the application area of your equipment.

Item no.	L	L1	DK	DG	DS	DSE	ACCRETECH
625006-3263-000	56.00	0.0	1.500	9.50	12.30	2.90	E-DT-SM10A

Styli for Handysurf E-DT-SM 11A and 12A

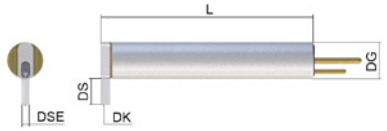
These styli are the ideal addition for your Handysurf E-35B. They are easily exchangeable and thus expand the application area of your equipment.



Item no.	L	L1	DK	DG	DS	DSE	ACCRETECH
625006-3264-000	41.20	14.5	1.500	9.50	4.50	4.00	E-DT-SM11A
625006-3265-000	41.20	14.5	1.500	9.50	2.70	2.70	E-DT-SM12A

Styli Handysurf E-DT-SM13A

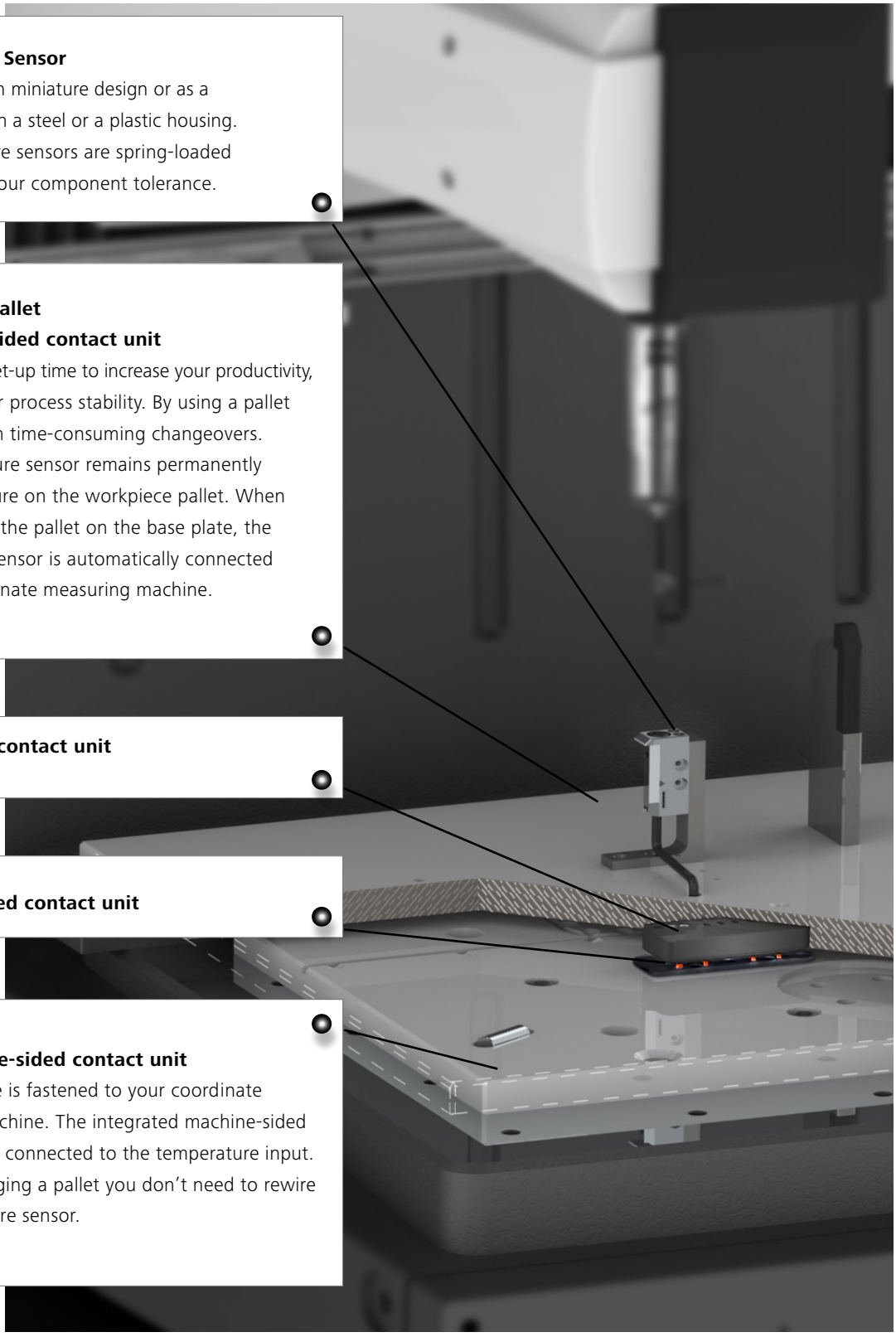
These styli are the ideal addition for your Handysurf E-35B. They are easily exchangeable and thus expand the application area of your equipment.



Item no.	L	L1	DK	DG	DS	DSE	ACCRETECH
625006-3266-000	56.00	0.0	1.500	9.50	7.20	2.80	E-DT-SM13A

Pallet systems with temperature sensor

A safe system for workpiece temperature monitoring on your coordinate measuring machine.



Temperature Sensor
It is available in miniature design or as a standard size in a steel or a plastic housing. All temperature sensors are spring-loaded and balance your component tolerance.

Workpiece pallet with pallet-sided contact unit
Reduce your set-up time to increase your productivity, as well as your process stability. By using a pallet change system time-consuming changeovers. The temperature sensor remains permanently with your fixture on the workpiece pallet. When putting down the pallet on the base plate, the temperature sensor is automatically connected to your coordinate measuring machine.

Pallet-sided contact unit

Machine-sided contact unit

Base plate with machine-sided contact unit
The base plate is fastened to your coordinate measuring machine. The integrated machine-sided contact unit is connected to the temperature input. When exchanging a pallet you don't need to rewire the temperature sensor.

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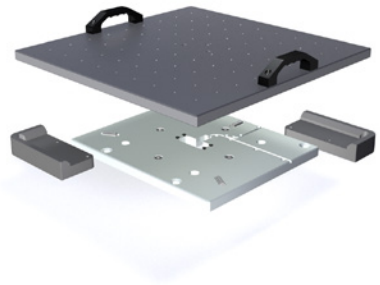
Changeover interface set, M10, 500 x 500

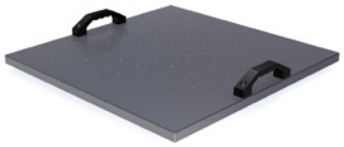
The practical changeover interface set consists of a workpiece pallet (either with or without M6 grid holes, 50 x 50 mm), a base mounting plate and two insertion aids which can be mounted on the coordinate measuring machine. The base mounting plate and insertion aids are available for CMMs with M10 fastening holes. The pallet and base mounting plate are prepared for the installation of an interface for the connection of a temperature sensor integrated in the device.



Item no.	Description
626109-9220-620	Changeover interface set M10 raster 500x500
626109-9220-650	Changeover interface set M10 basic 500x500

Workpiece pallet 500 x 500

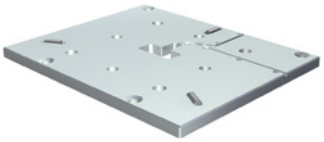
The 500 x 500 mm aluminum workpiece pallet comes with two carrying handles. It is designed for the installation of a temperature transmission interface. Two versions are available: With M6 threaded holes in a 50 x 50 mm grid and without holes (basis).



Item no.	Description
626109-9220-520	Workpiece pallet 500x500 Raster
626109-9220-550	Workpiece pallet 500x500 Basis

Base mounting plate for 500 x 500

The aluminum base mounting plate with fastening holes M10 (DuraMax) is mounted on the table of the coordinate measuring machine. It is prepared for the installation of the temperature transmission interface. Fixturing material and the respective insertion aids are supplied.



Item no.	Description
626109-9220-510	Base mounting plate M12 for pallet 500x500

Contact unit on the pallet side

The contact unit is installed in Workpiece pallet 500 x 500 and is used for transmitting the temperature sensor signals to the contact unit on the CMM side. The sensor can be directly connected via clamping contacts.

Item no.	Description
626140-9122-500	Temperature interface TSP-50 pallet contact unit

Contact unit on the CMM side

This unit is installed in the base mounting plate 500 x 500 (626109-9220-510), incl. cable (3m) with SUB-D socket for connection to CMMs.

Item no.	Description
626140-9121-500	TSM-50 contact unit f. temperature sensor, cmm side

Temperature sensor mini

This Pt100 1/10 DIN miniature sensor can be directly installed in workpiece holding fixtures, in order to record the workpiece temperature. With dimensions of Ø6.5 x 32mm and a spring deflection of approx. 2 mm, the sensor can also be installed in confined spaces.

Item no.	Description
626140-9113-200	Temperature sensor (mini), open cable end 1,5 m
626140-9113-100	Temperature sensor (mini) SUB-D, cable 1,5 m
626140-9113-000	Temperature sensor (mini), DIN, cable 1,5 m

Temperature sensor mini, angled

This Pt100 1/10 DIN miniature sensor can be directly installed in workpiece holding fixtures, in order to record the workpiece temperature. With dimensions of Ø6.5 x 32 mm and a spring deflection of approx. 2 mm, the sensor can also be installed in confined spaces.

Item no.	Description
626140-9113-210	Temperature sensor (mini) angled, open cable, 1,5m
626140-9113-110	Temperature sensor (mini) angled, SUB-D, cable 1,5m
626140-9113-010	Temperature sensor (mini) angled, DIN, cable 1,5m

Hinged bracket for temperature sensor mini

The hinged bracket is used to hold a temperature sensor mini and can be manually aligned on the workpiece for temperature measurement. Thread adapters in M6, M10, M12 and 1/4“ are available for the mounting.

Item no.	Description
626140-9134-000	Hinged bracket for temperature sensor mini without thread adapter
626140-9134-001	Hinged bracket for temperature sensor mini with thread adapter M6
626140-9134-002	Hinged bracket for temperature sensor mini with thread adapter M10
626140-9134-003	Hinged bracket for temperature sensor mini with thread adapter M12
626140-9134-004	Hinged bracket for temperature sensor mini with thread adapter M 1/4“

Temperature sensors

These temperature sensors can be directly integrated in the clamping fixture. They have a spring-loaded sensor head, open cable ends and ferrules (cable length = 3 m). Available with a plastic or steel housing.

Item no.	Description
626140-9111-200	Temperature sensor with plastic housing, open cable end 3 m
626140-9112-200	Temperature sensor with steel housing, open cable end 3 m
626140-9111-100	Temperature sensor SUB-D with plastic housing, open cable end 3 m
626140-9112-100	Temperature sensor SUB-D with steel housing, open cable end 3 m
626140-9111-000	Temperature sensor DIN with plastic housing, open cable end 3 m
626140-9112-000	Temperature sensor DIN with steel housing, open cable end 3 m
626140-9130-000	Sensorhead for Temperature sensor (fixtures)

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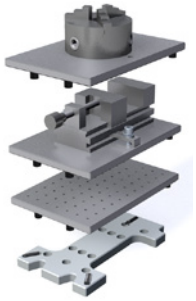
Interchangeable pallet set 300 x 200

All the initial equipment you need is provided in the practical interchangeable pallet set. It consists of a base mounting plate and an interchangeable grid pallet. A pallet with a vice or a pallet with a three jaw chuck is included depending on the set.



Item no.	Description
626109-9220-130	Interchangeable pallet with bench vice
626109-9220-140	Interchangeable pallet with three jaw chuck

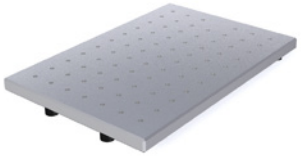
Base mounting plate

The base mounting plate is mounted directly in the measuring range of your coordinate measuring machine. The appropriate interchangeable pallets can be quickly and easily mounted by hand on the statically defined support with three rollers and with repeated accuracy.

Item no.	Description
626109-9220-010	Support plate

Interchangeable grid pallet 300 x 200

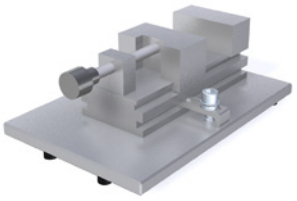
This 300 x 200 mm grid pallet with changer system has a 25 mm M6 hole line spacing. As a result, user-defined workpiece holding fixtures with bracket clamping systems or other elements can be assembled. You will find suitable clamping material in our clamping kit.



Item no.	Description
626109-9220-020	Grid plate M6x25

Interchangeable vice pallet 300 x 200

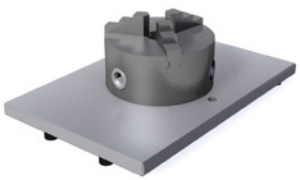
This 300 x 200 mm interchangeable pallet has a mounted vice with a jaw width of 73 mm and a maximum span width of 100 mm. The vice is mounted on the pallet with brackets and can be moved on the plate.



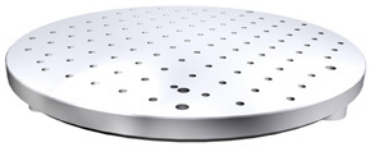
Item no.	Description
626109-9220-030	Bench vice interface

Interchangeable three jaw chuck pallet 300 x 200

This 300 x 200 mm interchangeable pallet has a mounted 125 mm three jaw chuck. A practical ratchet wrench for manipulating the chuck is also supplied.



Item no.	Description
626109-9220-040	Jaw chuck interface



Interchangeable pallet for DuraMax® RT with M4 grid

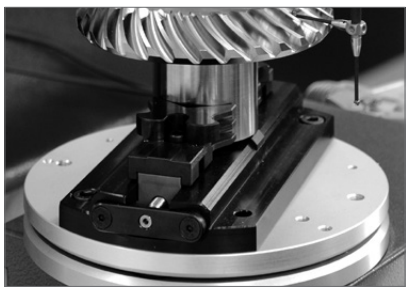
The interchangeable pallet with a diameter of 190 mm for the ZEISS DuraMax® RT is manufactured from aluminum and anodized. The pallet is provided with an M4 grid with a spacing of 15 x15 mm and has three different rubber feet by means of which it is indexed. There is also a centering hole on the interchangeable pallet for easy use. The lightweight interchangeable pallet weighs 0.95 kg and can be used to mount the workpiece outside the rotary table, so that this is not damaged.

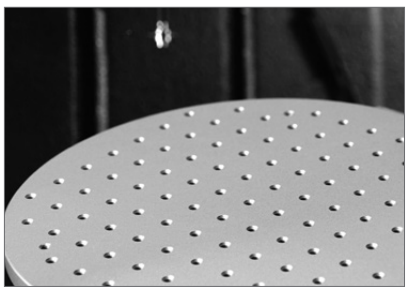
Item no.	Description
626109-9220-320	interchangeable pallet for DuraMax® RT with M4 grid

Interchangeable pallet for DuraMax® RT without holes

The interchangeable pallet with a diameter of 190 mm for the ZEISS DuraMax® RT is manufactured from aluminum and anodized. The pallet has no holes and can therefore be use flexibly. It has three different rubber feet by means of which it is indexed. There is also a centering hole on the interchangeable pallet for easy use. The interchangeable pallet can be used to mount the workpiece outside the rotary table, so that the rotary table is not damaged. The pallet without holes weighs 1.00 kg.

Item no.	Description
626109-9220-330	interchangeable pallet for DuraMax® RT without holes





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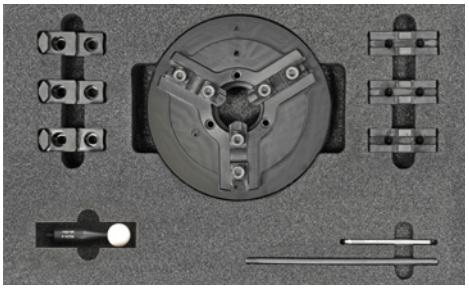
3-jaw chuck set for DuraMax® RT

The chuck turret of aluminium has an integrated changeover interface. Its low weight is especially optimized for the DuraMax® rotary table. Different clamping jaws provide optimum clamping for a wide variety of components for your measurement task. The kit also includes a reference sphere with a diameter of 25 mm.



Item no.		Description
626109-9232-000		3-jaw-chuck DuraMax Kit
Content	**Qty.**	**Description**
626109-0050-000	1	3-jaw chuck, (626109-0050-001 not in the set version),
626109-0050-001	1	3-jaw set 1, steel gunmetal-finished, internal clamping Ø10 - 175 mm, external clamping Ø28 - 190 mm
626109-0050-003	1	Jaw blanks for 3-jaw chuck, soft
600332-8445-000	1	Reference sphere RS-DK25-C for RSH-systems with certification
626109-0043-000	1	Hex wrench SW6.0 (SW5 not in this set version)

Vise set for DuraMax® RT

The vise kit has been especially developed for DuraMax® RT. It is distinguished by its low weight and optimized mounting height. Various jaw sets for the vise enable components from 1 mm to 160 mm to be clamped. Components can be positioned with axial precision as a result of the central clamping. Precise positioning of the vise on the DuraMax® rotary table enables the use of a special interchangeable pallet. The kit also includes a factory-calibrated reference sphere with a diameter of 25 mm.

Item no.		Description
626109-9220-410		Accessories kit DuraMax RT
Content	**Qty.**	**Description**
626109-0045-000	1	Centrally clamping vise, black anodized aluminum, each slides 50 mm, 1,26 kg
626109-0045-001	1	Jaw set 1, steel gunmetal-finished, internal clamping Ø76-160, external clamping Ø15 - 139, 0,26 kg
626109-0045-002	1	Jaw set 2, steel gunmetal-finished, internal clamping Ø55-142, external clamping Ø1 - 85, 0,24 kg
626109-0045-004	1	Jaw set 4, steel gunmetal-finished, internal clamping Ø25-113, 0,4 kg
626109-9220-310	1	Interchangeable pallet, diameter 190 mm for DuraMax RT and clamping vise, 0,88kg
600332-8445-000	1	Reference sphere RS-DK25-C for RSH-systems with certification
626109-0043-000	1	Hex wrench set, SW6, SW5

Jaw blanks for central clamping vise

The jaw blanks are made of steel and are gunmetal-finished. The soft blanks can be machined to the desired dimensions. Two jaw blancks are included, they have a weight of 0.76 kg.

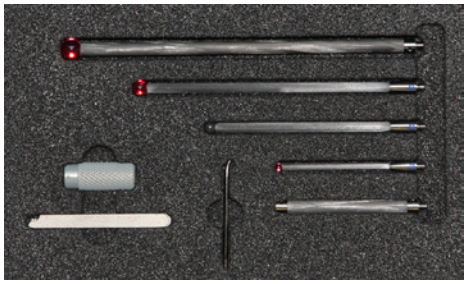
Item no.	Description
626109-0045-003	Jaw blanks for centrally clamping vise

Stylus kit 1, VAST® XXT, for small workpieces

This stylus kit is used for the ZEISS VAST® XXT scanning probe. It contains 9 pieces ideal for measuring small workpieces.

Item no.	Description
626103-9021-000	Stylus kit 1, VAST XXT, for small workpieces

Content	Qty.	Description
626113-0150-030	1	Stylus with thread, M3 XXT, tungsten carbide, ruby, DK1,5, L30
626103-0300-033	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L33
626103-0300-050	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L50
626103-0500-050	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK5, L50
626103-0500-075	1	Stylus with thread, M3 XXT, ThermoFit, silicon nitride, DK5, L75
626109-0018-000	2	Hook wrench DG5
000000-0015-323	1	Pin wrench 1,1, ZEISS Norm 1170
626109-0026-000	1	XXT-styli assembling aid



Stylus kit 2, VAST® XXT, for large workpieces

This stylus kit is used for the ZEISS VAST® XXT scanning probe. It contains 9 pieces ideal for measuring large workpieces.

Item no.	Description
626103-9022-000	stylus kit 2, VAST XXT, for large workpieces

Content	Qty.	Description
626103-5050-000	1	Stylus extension, M3 XXT, ThermoFit, DG5, L50
626103-0300-050	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L50
626103-0500-075	1	Stylus with thread, M3 XXT, ThermoFit, silicon nitridenitrid, DK5, L75
626103-0800-125	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK8, L125
626103-0600-100	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK6, L100
626109-0018-000	2	Hook wrench DG5
000000-0015-323	1	Pin wrench 1,1, ZEISS Norm 1170
626109-0026-000	1	XXT-styli assembling aid

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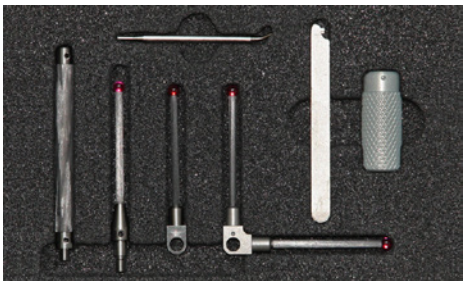
Stylus kit 3, VAST® XXT, star stylus

With this stylus kit, a star probe (1/4 or 1/2-star) can be assembled and attached to the ZEISS VAST XXT probe. It contains 7 pieces. The sphere diameter is 3 mm and the length of the styli is 40 mm.

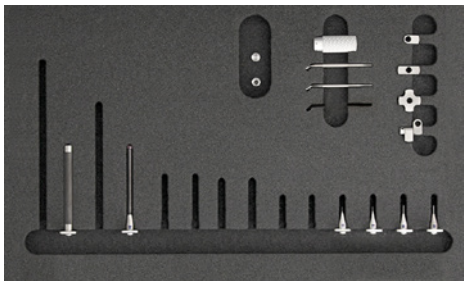


Item no.	Description
626103-9023-000	Star stylus kit, VAST XXT

Content	Qty.	Description
626103-5050-000	1	Stylus extension, M3 XXT, ThermoFit, DG5, L50
626103-0301-040	1	Clamp stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L40
626103-0302-040	1	Stylus for 1/4 Star, M3 XXT, ThermoFit, ruby, DK3, L40
626103-0303-040	1	Stylus for 1/2 Star 90°, M3 XXT, ThermoFit, ruby, DK3, L40
626109-0018-000	2	Hook wrench DG5
000000-0015-323	1	Pin wrench 1,1, ZEISS Norm 1170
626109-0026-000	1	XXT-styli assembling aid

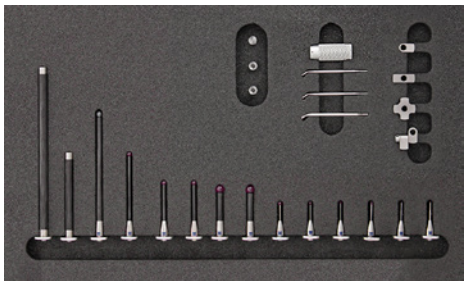
Stylus kit 4, VAST® XXT, small

This stylus kit contains 15 pieces to assemble various stylus system configurations for the ZEISS VAST XXT scanning probe.



Item no.	Description
626103-9024-000	Stylus kit 4, VAST XXT, small

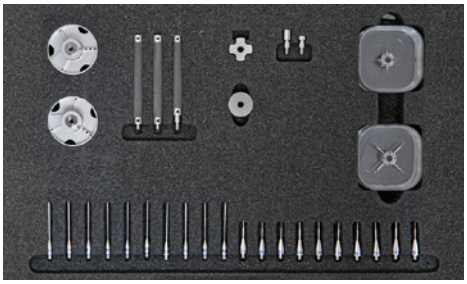
Content	Qty.	Description
626103-6110-004	1	Clamping screw, M3 XXT, titanium
626103-6110-005	2	Clamping screw with internal thread, M3 XXT, titanium
626109-0026-000	1	XXT-styli assembling aid
000000-0015-323	2	Pin wrench 1,1 ZEISS Norm 1170
626103-6110-001	1	Cube 90°, M3 XXT, single, titanium
626103-6110-001	1	Cube 180°,M3 XXT, double, titanium
626103-6110-003	1	Star sytlus, M3 XXT, titanium
626103-6180-001	1	Knuckle joint, M3 XXT, titanium
626103-5050-000	1	Stylus extension, M3 XXT, ThermoFit, L50
626103-0300-050	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L50
626113-0050-013	2	Stylus with thread, M3 XXT, stepped, tungsten carbide, ruby, DK0,5, L13, ML4, MLE2,3
626113-0080-014	2	Stylus with thread, M3 XXT, tungsten carbide, ruby, DK0,8, L14



Stylus kit 5, VAST® XXT, large

This stylus kit contains 25 pieces to assemble various stylus systems for the ZEISS VAST XXT scanning probe.

Item no.		Description
626103-9025-000		stylus kit 5, VAST XXT, large
Content	**Qty.**	**Description**
626103-6110-004	1	Clamping screw, M3 XXT, titanium
626103-6110-005	2	CZlamping screw with internal thread, M3 XXT, titanium
626109-0026-000	1	XXT-styli assembling aid
000000-0015-323	3	Pin wrench 1,1 ZEISS Norm 1170
626103-6110-001	1	Cube 90°, M3 XXT, single, titanium
626103-6110-001	1	Cube 180°,M3 XXT, double, titanium
626103-6110-003	1	Cube star, M3 XXT, titanium
626103-6180-001	1	Knuckle joint, M3 XXT, titanium
626103-5100-000	1	Stylus extension, M3 XXT, ThermoFit, L100
626103-5050-000	1	Stylus extension, M3 XXT, ThermoFit, L50
626103-0500-075	1	Stylus with thread, M3 XXT, ThermoFit, silicon nitride, DK5, L75
626103-0300-050	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L50
626103-0300-033	2	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L33
626103-0500-030	2	Stylus with thread, M3 XXT, ThermoFit, ruby, DK5, L30
626113-0200-020	2	Stylus with thread, M3 XXT, tungsten carbide, ruby, DK2, L20
626113-0150-020	2	Stylus with thread, M3 XXT, tungsten carbide, ruby, DK1,5, L20
626113-0100-020	2	Stylus with thread, M3 XXT, stepped, tungsten carbide, ruby, DK1, L20, ML11, MLE5



Gear stylus kit, VAST® XXT TL3

This stylus kit contains 31 pieces to assemble various styli systems ideal for gear measurement.

Item no.		Description
626103-9034-000		GEAR stylus kit XXT TL3 for gear measurement
Content	**Qty.**	**Description**
620161-8076-000	2	Stylus holder ZSH-28-B-0-M3 TL3 for VAST XXT-ID probe 18P
626103-5050-000	2	Stylus extension, M3 XXT, ThermoFit L50
626103-6110-003	1	Cube star, M3 XXT, 4-foulded,titanium
626103-6110-007	1	Cube star 45°, M3 XXT, 8-foulded, titanium
626113-0080-020	10	Stylus with thread, M3 XXT, stepped, tungsten carbide, ruby, DK0,8, L20, ML11, MLE4,8
626113-0150-030	10	Stylus with thread, M3 XXT, tungsten carbide, ruby, DK1,5, L30
626103-6110-005	1	Clamping screw with internal thread, M3 XXT, titanium
626103-0050-025	1	Cube star, M3 XXT, stepped, tungsten carbide, ruby, DK0,5, L8,5
626103-0050-016	1	Cube star, M3 XXT, stepped, tungsten carbide, ruby, DK0,5, L4
626103-5045-010	1	Clamping extension, M3 XXT, ThermoFit, L45
626103-6110-004	1	Clamping screw, M3 XXT, titanium

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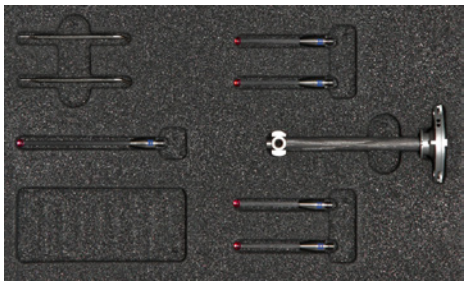
Star stylus kit, VAST® XXT, large for TL1

Star stylus kit for ZEISS VAST® XXT TL1. This kit contains five large ThermoFit® styli with a ruby sphere, an adapter plate with a star cube and the requisite pin wrenches. This kit can be used to assemble simple styli, star styli or T- and L-styli.

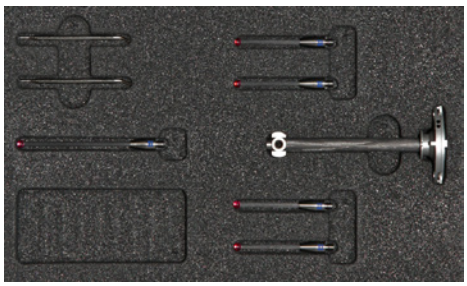


Item no.	Description
626103-9031-000	Star stylus kit, VAST XXT TL1, 55 mm

Content	Qty.	Description
000000-0015-323	2	Pin wrench 1,1, Zeiss Norm 1170
626103-0300-050	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L50
626103-8031-055	1	Stylus holder with star adapter TL1, ZSH-28-A-55-5X-M3, L55
626103-0300-033	4	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L33

Star stylus kit, VAST® XXT, groß für TL3

Star stylus kit for ZEISS VAST® XXT TL3. This kit contains five large ThermoFit® styli with a ruby sphere, an adapter plate with a star cube and the requisite pin wrenches. This kit can be used to assemble simple styli, star styli or T- and L-styli.

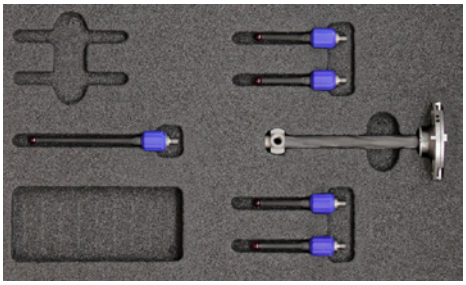


Item no.	Description
626103-9033-000	Stylus holder kit, ZSH-28-B-55-M3, star styli

Content	Qty.	Description
000000-0015-323	2	Pin wrench 1,1, ZEISS Norm 1170
626103-0300-050	1	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L50
626103-8033-055	1	Stylus holder with star adapter TL3 ZSH-28-B-55-5X-M3, L55
626103-0300-033	4	Stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L33

Star stylus kit, VAST® XXT with Rändel-styli for TL1

Star stylus kit for the XXT probes TL1. This kit includes five Rändel-styli and an adapter plate for XXT TL1. The styli can be quickly and easily assembled without tools. Rändel styli are a economic alternative to standard styli.



Item no.	Description
626103-9042-000	Star stylus kit VAST XXT TL1, Rändel-stylus

Content	Qty.	Description
626103-8031-055	1	Stylus holder with star adapter VAST XXT,ZSH-28-A-55-5X-TL1-M3
626103-0307-030	4	Rändel-stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L30
626103-0307-050	1	Rändel-stylus with thread, M3 XXT, ThermoFit, ruby, DK3, L50

Carry out measurements near the production line with the DuraMax Shop floor

New components for the compact coordinate measuring machine from ZEISS

The DuraMax® coordinate measuring machine from ZEISS is now even better suited for measurements near the production line, also of several workpieces at once, with a series of additional components and functional capabilities.

The compact coordinate measuring machine is now available in the variant DuraMax Shop floor. On the one hand, the measuring machine is completely customized to use in the harsh production environment with its additional functional capabilities. On the other hand, it provides even better support for the measurement of several workpieces in a single measuring cycle. In this respect, DuraMax eliminates the need for manual measurements with a large number of gages and complex fixtures.

Speed will be one of the most important challenges for production measuring technology in the future, and this applies to all sectors.

"Speed will be one of the most important challenges for production measuring technology in the future, and this applies to all sectors", says Alexander Dollansky, Product Manager at Carl Zeiss Industrielle Messtechnik. "One way of accelerating the measuring process is measurement near the production line -- and this is precisely what DuraMax Shop floor stands for", Dollansky adds.

 © Carl Zeiss 3D Automation GmbH

Fit for the production environment

Two components make DuraMax Shop floor even less susceptible and more compact with measuring results even more precise: a base for the measuring machine and a function for temperature compensation. The latter measures the workpiece temperature via sensors. The CALYPSO measuring software subsequently offsets this against the measuring results and thereby considers the linear expansion coefficients of the workpiece. Users therefore obtain an even more precise measuring result. This works even if several workpieces are positioned and successively measured at once. Furthermore, the so-called Shop floor base accommodates the measurement computer in a metal cabinet under the measuring machine. This saves space and also protects it from dust. As a result, the coordinate measuring machine is even better equipped for the production environment with its restricted space and variations in temperature.

Standardized user interface

The package solution includes the standardized user interface FACS light, so that the measuring machine is also optimally integrated in the software environment. This user and communication interface, which has been standardized for the first time, enables data exchange via twelve fixed-configured inputs and eight outputs. This makes it easier for the user to control measuring plans and parameters. Besides the CALYPSO measuring software, CALYPSO Flex Reporter is also used to evaluate the results: The software for statistical process control visualizes the measuring results with the aid of clearly arranged graphics, e.g. for standard deviations and average values. The advantage for the user: a quick overview for assessment of their measuring results – and this is provided in the direct vicinity of their machine tool.

Ready for pallet measurement

Among other things, DuraMax Shop floor supports the measurement of several workpieces at once by means of the ergonomic manual loading table. An extendable aluminium table simplifies and accelerates the preparation of a complete pallet of workpieces for measurement. While the CMM quickly and independently carries out extensive measurements on each workpiece of the pallet, the user has time to prepare the next load for measurement. Production measuring technology is increasingly becoming an integral component of the flexible production process. With DuraMax Shop floor for the production environment, the user is prepared for the future.

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Carl Zeiss
3D Automation GmbH

Carl-Zeiss-Str.32
73431 Aalen
Germany

Phone: +49 7361 6336 0
Telefax: +49 7361 6336 29

E-mail: orders@3d-net.de
Internet: www.probes.zeiss.com